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ABSTRACT

The purpose of this report was to review programs carried out by the Oak Ridge Associated Universities (ORAU) during 1969 and 1970 to help design, develop, implement, and evaluate various means for further strengthening traditionally Negro institutions of higher learning. The report summarizes two 4-week summer workshops for faculty members of Black institutions conducted during 1970 in Oak Ridge, and two 1-week workshops for administrators, held concurrently. The purpose of the workshops was to promote greater cognizance of national needs and related government programs through an examination of engineering, the natural sciences, social sciences, and the humanities as individual and collective sources of solutions to specific problems of national concern. An effort was also made to evaluate the relevance of existing governmental programs to scientific and technological capabilities of Negro schools. The report also: (1) traces chronologically the events that led to the 1970 activities and presents the activities and results of the 1969 workshops; (2) briefly discusses the 1970 post- workshop developments and activities; and (3) summarizes the accomplishments of the workshops and presents a projection of the ORAU's future role in activities with, and on behalf of predominantly Black institutions. (AF)

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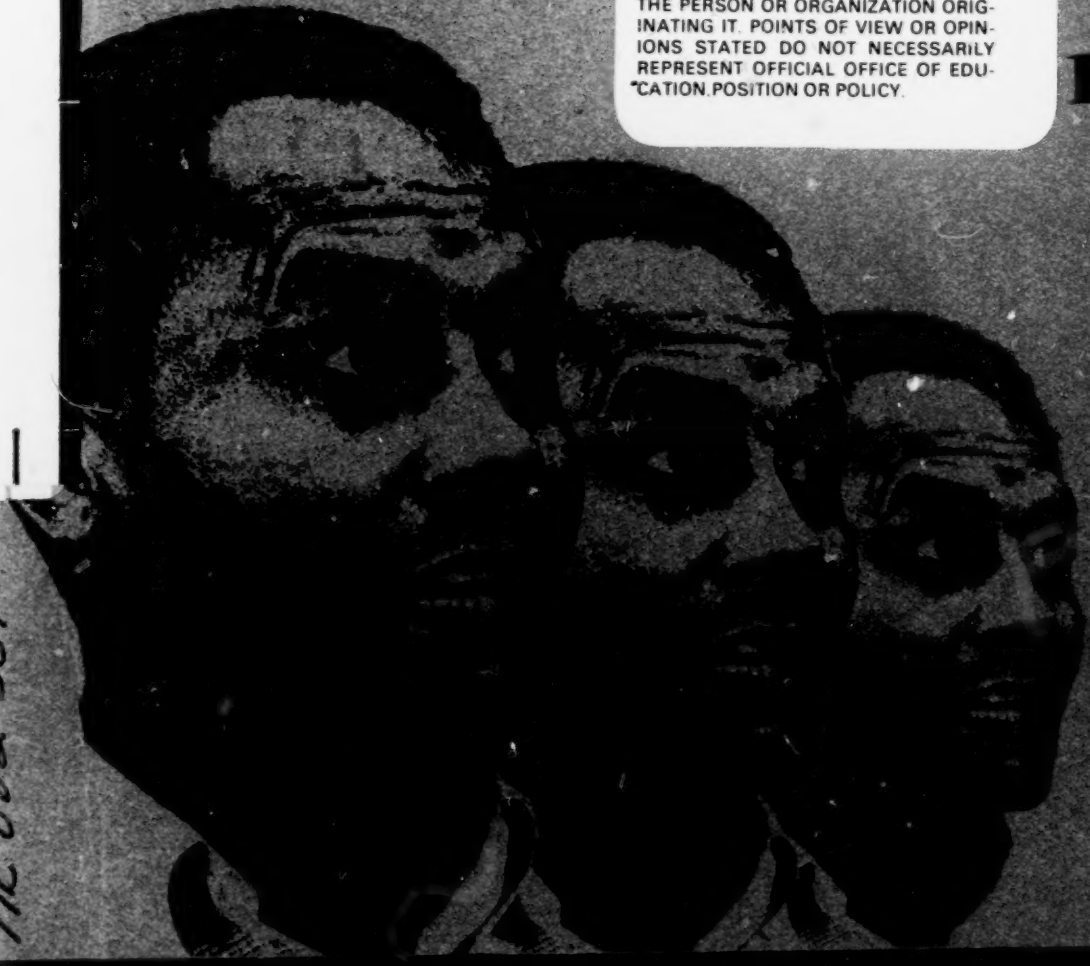
# 1969-70



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Oak Ridge Associated Universities is a private, nonprofit corporation sponsored by 41 colleges and universities in the South, three of which – Fisk University, Meharry Medical College, and Tuskegee Institute – are predominantly black institutions. The Association was chartered in the State of Tennessee in 1946 and operated for its first 20 years as the Oak Ridge Institute of Nuclear Studies. The pioneer among corporate university management groups of its type in the United States, ORAU conducts programs of education, information, and research under contract with the U.S. Atomic Energy Commission and other governmental and private agencies.

Knoxville College, which joined ORAU in presenting the 1970 Oak Ridge workshops for faculty and administrators at Negro institutions, is a predominantly black, four-year liberal arts college in Knoxville, Tennessee, which will celebrate its 100th anniversary in 1975.

Auburn University
Catholic University of America
Clemson University
College of William and Mary
Duke University
Emory University
Fisk University
Florida State University
Georgia Institute of Technology
Louisiana State University
Meharry Medical College
Mississippi State University
North Carolina State University
North Texas State University

Rice University
Southern Methodist University
Texas A & M University
Texas Christian University
Texas Woman's University
Tulane University
Tuskegee Institute
University of Alabama
University of Arkansas
University of Florida
University of Georgia
University of Kentucky
University of Louisville
University of Maryland

University of Miami
University of Mississippi
University of North Carolina
University of Oklahoma
University of Puerto Rico
University of South Carolina
University of Tennessee
University of Texas
University of Virginia
Vanderbilt University
Virginia Commonwealth University
Virginia Polytechnic Institute and State University
West Virginia University

# 1969–70

# oak ridge workshops for faculty and administrators of traditionally negro institutions

by W. W. Grigorieff

Oak Ridge Associated Universities
Oak Ridge, Tennessee
June 1971

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# foreword

The purpose of this report is to review programs carried out by Oak Ridge Associated Universities (ORAU) during 1969 and 1970 to help design, develop, implement, and evaluate various means for further strengthening traditionally Negro institutions of higher learning.

The original impetus for this effort was provided by Z. W. Dybczak, dean of engineering at Tuskegee Institute, at the conclusion of a meeting of the ORAU Engineering Education Committee in September 1968 in New Orleans. Dr. Dybczak suggested that ORAU look into, and "do something" about, helping institutions with predominantly black enrollments to improve their offerings.

The activities described herein were made possible by the substantial and substantive support of the Division of Nuclear Education and Training of the U. S. Atomic Energy Commission, and especially of its director, Elliot Pierce, and his colleagues, Russell Poor and George Courtney. Of equal importance were the contributions made by Marion Bowden, assistant for equal employment opportunity programs in the office of the AEC general manager, and by Herman M. Roth, director of the Laboratory and University Division of AEC's Oak Ridge Operations.

Particularly significant as well to the success of this venture was the early endorsement by the Federal Interagency Committee on Education (FICE) and the energetic and enthusiastic cooperation of its former executive director, Emery F. Bacon. Mr. Bacon and his staff were uniquely instrumental in guiding our planning and in generating interest and financial support through responsible officers of the Office of Education, including Willa B. Player and Paul Carnell, former Division of College Support, Bureau of Higher Education, and William Thomas Carter, of the Bureau of Educational Personnel Development.

A national advisory committee* of educators likewise contributed wise guidance to the project at the planning stage and several of its members participated actively in the Oak Ridge program.

Knoxville College, its president, Robert L. Owens, and particularly Professor William H. McArthur, chairman of the College's Division of Natural Sciences and Mathematics, made unique contributions to the 1970 workshops; without them the program could not have been launched, nor have achieved the success that it did. Hardy Liston, Jr., assistant vice chancellor of academic affairs at the University of Tennessee, Knoxville, played a major role in the 1969 activities as the first ORAU professor in residence (then on loan from North Carolina A & T State University) and as a program consultant in 1970.

William G. Pollard, executive director of ORAU, provided firm support in developing the program and its various modifications.

It is a pleasure also to acknowledge our appreciation to Professor Arthur Victor Jett, Jr., of Tuskegee Institute, who was ORAU professor in residence during the planning and conduct of the 1970 workshops, to Victor Montgomery of Howard University, and to Marvin Hobby of Georgia Power Company, who were primarily responsible, under Dr. McArthur's direction, for the 1970 program. My warm thanks extend to Lana Kirk and Susie Stevens who were constructively involved and to Sharon Herrell of this office, whose smooth and efficient effort was invaluable.

It is my hope that this activity may bring us closer to a better understanding of the problems and aspirations of traditionally Negro institutions, and to the solution of some of these problems in the '70's.

W. W. Grigorieff
Assistant to the Director
Oak Ridge Associated Universities

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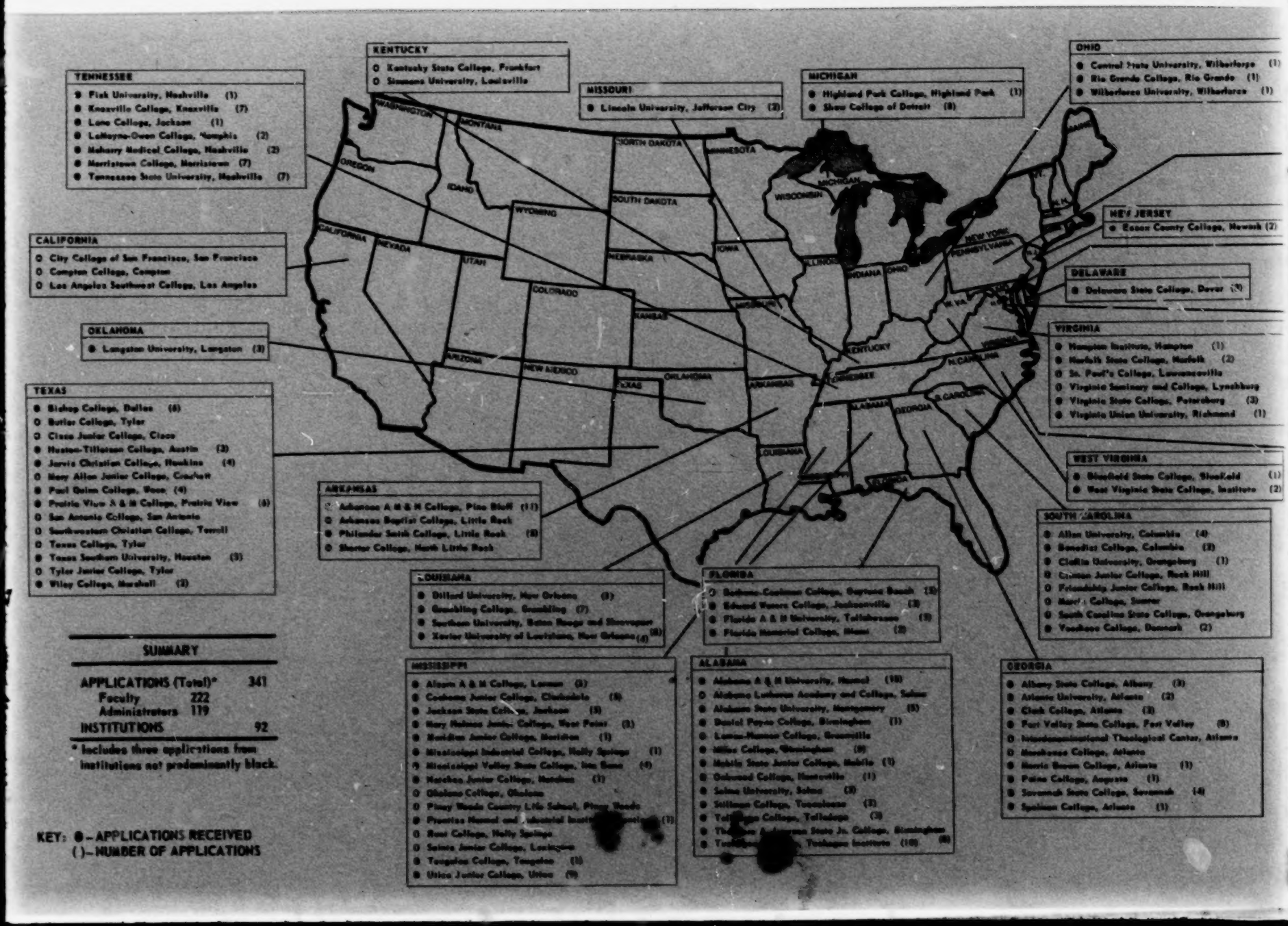
*Members of the advisory committee were: Elias Blake, Jr., president, Institute for Services to Education, Inc., Washington, D.C.; Herman R. Branson, president, Lincoln University, Lincoln University, Pennsylvania; Lewis C. Dowdy, president, North Carolina A & T State University, Greensboro; Arthur Hansen, president, Georgia Institute of Technology, Atlanta; Benjamin E. Mays, president, Atlanta Board of Education; Samuel M. Nabrit, director, Southern Fellowship Fund, Atlanta; Joseph Paige, director of adult and continuing education program and community services, Federal City College, Washington, D.C.; Frederick D. Patterson, president, Moton Memorial Foundation, New York, New York; Willa B. Player, director, Division of College Support, U. S. Department of Health, Education, and Welfare, Washington, D.C.; Herman B. Smith, director, Office for the Advancement of Public Negro Colleges, Land-Grant Colleges Association, Atlanta; Rembert E. Stokes, president, Wilberforce University, Wilberforce, Ohio; Ralph W. Tyler, director emeritus, Center for Advanced Study in Behavioral Sciences, Stanford University, Stanford, California; and Walter Washington, president, Alcorn A & M State University, Lorman, Mississippi.

# introduction

The purpose of this report is fourfold: 1) to summarize two four-week summer workshops for faculty members of black institutions, conducted during June and July 1970 in Oak Ridge, and two one-week workshops for administrators, held concurrently with the faculty sessions; 2) to trace chronologically the events that led to the 1970 activities by presenting, in capsule form, the purpose, activities, and results of the 1969 workshop; 3) to sketch briefly the 1970 post workshop developments and activities; and 4) to summarize the accomplishments of the workshops and present a projection of ORAU's future role in activities with, and on behalf of, institutions of predominantly black enrollment.

The 1969 activities were supported directly by the Division of Nuclear Education and Training of the U.S. Atomic Energy Commission. The expanded activities of 1970 continued to benefit from the direct financial assistance of that division; and, in addition, the Office of Education provided funds in support of the program to the workshop cosponsor, Knoxville College, through 1) the Bureau of Educational Personnel Development, Division of Program Resources, and 2) the Bureau of Higher Education, Division of College Support. The Federal Interagency Committee on Education, on which are represented the AEC, Office of Education, and other agencies with educational missions, served both in an advisory and a coordinating role with respect to this federal participation in the Oak Ridge program.


TENNESSEE
● Fisk University, Nashville (1)
● Knoxville College, Knoxville (7)
● Lane College, Jackson (1)
● LeMoyne-Owen College, Memphis (2)
● Meharry Medical College, Nashville (2)
● Morristown College, Morristown (7)
● Tennessee State University, Nashville (7)
KENTUCKY
○ Kentucky State College, Frankfort
○ Simmons University, Louisville
MISSOURI
● Lincoln University, Jefferson City (2)
MICHIGAN
● Highland Park College, Highland Park (1)
● Shaw College of Detroit (8)
OHIO
● Central State University, Wilberforce (1)
● Rio Grande College, Rio Grande (1)
● Wilberforce University, Wilberforce (1)
CALIFORNIA
○ City College of San Francisco, San Francisco
○ Compton College, Compton
○ Los Angeles Southwest College, Los Angeles
NEW JERSEY
● Essex County College, Newark (2)
DELAWARE
● Delaware State College, Dover (9)
OKLAHOMA
● Langston University, Langston (3)
VIRGINIA
● Hampton Institute, Hampton (1)
● Norfolk State College, Norfolk (2)
○ St. Paul's College, Lawrenceville
○ Virginia Seminary and College, Lynchburg
● Virginia State College, Petersburg (3)
● Virginia Union University, Richmond (1)
TEXAS
● Bishop College, Dallas (6)
○ Butler College, Tyler
○ Cisco Junior College, Cisco
● Huston-Tillotson College, Austin (3)
● Jarvis Christian College, Hawkins (4)
○ Navy Allen Junior College, Crockett
● Paul Quinn College, Waco (4)
● Prairie View A & M College, Prairie View (6)
○ San Antonio College, San Antonio
○ Southwestern Christian College, Terrell
○ Texas College, Tyler
● Texas Southern University, Houston (3)
○ Tyler Junior College, Tyler
● Wiley College, Marshall (2)
WEST VIRGINIA
● Bluefield State College, Bluefield (1)
● West Virginia State College, Institute (2)
ARKANSAS
● Arkansas A M & N College, Pine Bluff (11)
○ Arkansas Baptist College, Little Rock
● Philander Smith College, Little Rock (8)
○ Shorter College, North Little Rock
SOUTH CAROLINA
● Allen University, Columbia (4)
● Benedict College, Columbia (3)
● Claflin University, Orangeburg (1)
○ Clinton Junior College, Rock Hill
○ Friendship Junior College, Rock Hill
○ Morris College, Sumter
○ South Carolina State College, Orangeburg
● Voorhees College, Denmark (2)
LOUISIANA
● Dillard University, New Orleans (3)
● Grambling College, Grambling (7)
● Southern University, Baton Rouge and Shreveport
● Xavier University of Louisiana, New Orleans (4) (8)
FLORIDA
○ Bethune-Cookman College, Daytona Beach (2)
● Edward Waters College, Jacksonville (3)
● Florida A & M University, Tallahassee (5)
● Florida Memorial College, Miami (2)
MISSISSIPPI
● Alcorn A & M College, Lorman (3)
● Coahoma Junior College, Clarksdale (5)
● Jackson State College, Jackson (5)
● Mary Holmes Junior College, West Point (3)
● Meridian Junior College, Meridian (1)
● Mississippi Industrial College, Holly Springs (1)
● Mississippi Valley State College, Itta Bena (4)
● Natchez Junior College, Natchez (1)
○ Okolona College, Okolona
○ Piney Woods Country Life School, Piney Woods
● Prentiss Normal and Industrial Institute, Prentiss (1)
○ Rust College, Holly Springs
○ Selma Junior College, Lexington
● Tougaloo College, Tougaloo (1)
● Utica Junior College, Utica (9)
ALABAMA
● Alabama A & M University, Normal (10)
○ Alabama Lutheran Academy and College, Selma
● Alabama State University, Montgomery (5)
● Daniel Payne College, Birmingham (1)
○ Lomax-Hannon College, Greenville
● Miles College, Birmingham (9)
● Mobile State Junior College, Mobile (1)
○ Oakwood College, Huntsville (1)
● Selma University, Selma (3)
● Stillman College, Tuscaloosa (3)
● Talladega College, Talladega (3)
● Tuskegee Institute (10) (8)
GEORGIA
● Albany State College, Albany (3)
● Atlanta University, Atlanta (2)
● Clark College, Atlanta (3)
● Fort Valley State College, Fort Valley (8)
○ Interdenominational Theological Center, Atlanta
○ Morehouse College, Atlanta
● Morris Brown College, Atlanta (1)
● Paine College, Augusta (1)
● Savannah State College, Savannah (4)
● Spelman College, Atlanta (1)
SUMMARY
APPLICATIONS (Total)* 341
Faculty 222
Administrators 119
INSTITUTIONS 92
* Includes three applications from institutions not predominantly black.
KEY: ●–APPLICATIONS RECEIVED
( )–NUMBER OF APPLICATIONS

# 1970 oak ridge workshops for traditionally negro institutions

**PENNSYLVANIA**
- Cheyney State College, Cheyney (8)
- Lincoln University, Lincoln University (3)

**MARYLAND**
- Bowie State College, Bowie (2)
- Coppin State College, Baltimore (1)
- Maryland State College, Princess Anne (2)
- Morgan State College, Baltimore (3)

**DISTRICT OF COLUMBIA**
- District of Columbia Teachers College, Washington
- Federal City College, Washington (9)
- Howard University, Washington (2)
- Washington Technical Institute, Washington (1)

**NORTH CAROLINA**
- Barber-Scotia College, Concord (5)
- Bennett College, Greensboro (2)
- Central Piedmont Community College, Charlotte
- Elizabeth City State University, Elizabeth City (4)
- Fayetteville State University, Fayetteville (1)
- Johnson C. Smith University, Charlotte (7)
- Kittrell College, Kittrell (4)
- Livingstone College, Salisbury (7)
- North Carolina A & T State University, Greensboro (9)
- North Carolina Central University, Durham (1)
- St. Augustine's College, Raleigh (1)
- Shaw University, Raleigh (7)
- Winston-Salem State University, Winston-Salem

*Fig. 1 Invitations and Applications, 1970 Oak Ridge Workshops for Traditionally Negro Institutions*

The 1970 workshops, under the title, "H
Response to the Needs of Society in th
to open new lines of development for t
of black institutions, by broadening the
participants with the teaching and rese
available to them through both governm
sources. Moreover, three workshops pr
needed time for participating faculty an
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to identify common problems. Participa
defined as an unpredicted result the re
developed through the workshops with
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A highly interesting dimension of the 1
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students from Knoxville College. They
and significant stimulus to the discuss
as part of a trialogue among administr
students. Their activities included the
a prospectus for a project of neighbor
and the planning for a national leader

# 1970 oak ridge workshops
# traditionally negro institutions

The 1970 workshops, under the title, "Higher Education's Response to the Needs of Society in the '70's," served to open new lines of development for the academic programs of black institutions, by broadening the acquaintance of participants with the teaching and research resources available to them through both governmental and private sources. Moreover, these workshops provided much-needed time for participating faculty and administrators to become acquainted, to interact, to exchange ideas, and to identify common problems. Participants themselv... defined as an unpredicted result the relationships they developed through the workshops with faculty in other institutions. In a number of cases, they met for the first time and got to know colleagues from institutions in the same state and less than 100 miles from their own campuses.

A highly interesting dimension of the 1970 program was the inclusion, as full-fledged participants, of a team of four students from Knoxville College. They provided a striking and significant stimulus to the discussions, especially as part of a trialogue among administrators, faculty, and students. Their activities included the development of a prospectus for a project of neighborhood improvement and the planning for a national leadership conference

...e Workshops for



9A

for students from black institutions to consider causes of and solutions to problems resulting in campus unrest.

**Background**

A letter to presidents and deans of black institutions in December 1969, exploring their potential interest in a summer workshop program in Oak Ridge, drew 160 expressions of interest by mid-January 1970. Funding by the Office of Education was announced early in March, thus insuring tentative support offered previously by the Atomic Energy Commission. The Federal Interagency Committee on Education (FICE) arranged a broadly representative planning meeting on March 11 in Washington and for a smaller task force a week later. Announcements then were mailed on April 10 to senior academic officers of more than 120 predominantly black colleges and universities.

Although there was a question whether black institutions would respond favorably to the workshops—and although the grant award was late in coming—by May 15, just five weeks after the original mailing, ORAU had received 326 applications for the limited openings; late nominations brought the final figures to 341 applicants from 92 institutions (Fig. 1).

Available funds made it possible to extend invitations to 80 faculty members and 113 administrators. Although originally three workshop sessions of 24 participants each had been planned, the unexpectedly enthusiastic response by the black academic community necessitated modifying these plans to the following final format. Two concurrent workshops were held June 8–July 3, 1970, for 33 faculty members, and June 15–19 for 17 administrators. These were followed in July by two workshops involving 39 faculty, July 6–31, and 40 administrators, July 20–24. A total of 129 faculty and administrators from 67 black colleges in 20 states and the District of Columbia participated in the summer program. Participants received a stipend of $75 per week, with a weekly allowance of $15 per dependent (up to a maximum of 2), and an allowance of $16 per day for living expenses while in Oak Ridge.

Those attending were from a variety of disciplines in the natural sciences, humanities, and social sciences, with individual interests ranging from physics to philosophy. Natural sciences were represented by 42 participants; social sciences by 21; and the humanities by 16. Among participants in the one-week sessions for administrators, there were two presidents, one vice president, 16 deans, and 38 other administrators.

There were 59 workshop speakers who presented lectures and/or participated in group discussions. Selected on the basis of their knowledge and expertise and ability to communicate, the speakers represented the U.S. Atomic Energy Commission, Department of Health, Education and Welfare, Oak Ridge Associated Universities, Oak Ridge National Laboratory, University of Tennessee, and several public corporations.

**Purpose**

The purpose of the workshops was to promote greater cognizance of national needs, and related government programs, through an examination of engineering, the natural sciences, social sciences, and the humanities as individual and collective sources of solutions to specific problems of universal concern. The aim was to provide a multidisciplinary focus upon the human condition in the contemporary world, and to develop a deeper

understanding of the impact of science and technology upon society through a coordinated series of formal lectures, seminars, panel discussions, and participation in small work groups. This, in turn, led to a consideration of the relevance of existing governmental programs to scientific and technological capabilities of the traditionally Negro schools.

**Program**

Prominent federal administrators were brought to the seminars for detailed expositions of present programmatic and probable future involvement of their agencies in the leading action-centered issues that confront the country's scholars in this decade. Major topics of the sessions under the overall theme, "Higher Education's Response to the Needs of Society in the '70's," were: Man and His Institutions, Man and His Environment, Man and The World of Work, and The University's Response.

The program posed, and sought answers to, the essential question of how the participating institutions might gear their activities to address effectively and provide viable solutions to the problems confronting mankind and, particularly, black institutions themselves.

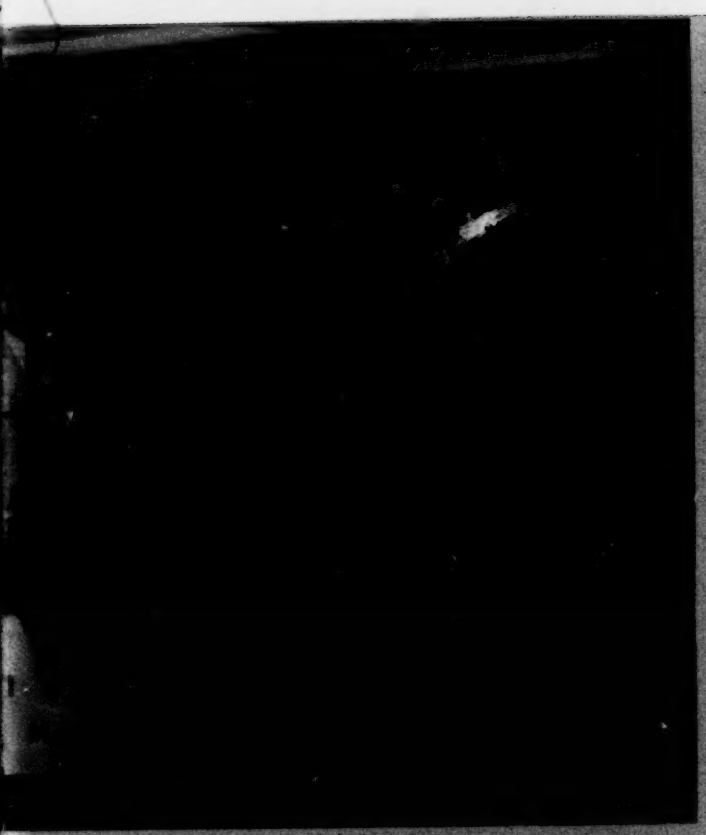
A significant result of the workshops has been the initiative shown by the participants, both during the workshop program and since, in identifying needs, formulating plans, developing projects, and following through on proposals both for individual and cooperative action to strengthen their institutions. Below are listed the major programs and projects developed and reported by the participants through April 1971. Together they represent grant and contract commitments by the Federal Government, principally through the Office of Education, Department of Health, Education, and Welfare, totaling $547,000.

***Among 1970 workshop panelists were, from left, Herman M. Roth, director of the Laboratory and University Division of the AEC's Oak Ridge Operations; W. W. Grigorieff, assistant to the director, ORAU, the workshop director; Marion A. Bowden, assistant for equal employment opportunity programs to the AEC general manager; and George W. Courtney, Jr., chief of the University Relations Branch, AEC Division of Nuclear Education and Training.***

## PROGRAMS AND PROJECTS DEVELOPED BY 1970 WORKSHOP PARTICIPANTS

| Title and Principal Investigator | Status |
|---|---|
| *Training Program for Institutional Researchers,*<br>(Mrs.) Freddie Groomes<br>Florida A & M University | Awarded $50,000, HEW |
| Pre-law program to send history majors to Washington, D.C. for internships in the offices of senators and congressmen<br>Se Jin Kim<br>North Carolina Central University | Awarded $2,000 planning grant, HEW |
| *Experiential Learning,* an on-the-job training experience while enrolled in college<br>Bobby Downing<br>Knoxville College | Awarded $47,000 planning grant, HEW |
| *Environmental Science Workshop for Science Teachers,*<br>Charlie Smith<br>Jackson State College | Awarded $12,000, HEW |
| *Training in Sensitivity Through Human Ecology,*<br>Willis Brown<br>Langston University | Awarded $24,000, HEW |
| Cooperative Program in Allied Health Professions between Tennessee State University and Meharry Medical College | Approved by respective governing boards |
| Training Program for Adult Educators<br>Tennessee State University | Approved by Tennessee Board of Education and awarded $19,000 planning grant |
| Correctional Services Program leading to the B.S. degree in Corrections<br>Tennessee State University | Approved by Tennessee Board of Education |

| Title and Principal Investigator | Status |
| --- | --- |
| Cooperative Program between Tennessee State University and the University of Tennessee–Nashville to establish the Southeastern Regional Training Center for Pupil Personnel Services Specialists | Awarded $160,000 planning grant |
| *Operation Springboard*,<br>L. C. Wood and Jean Manning<br>Paul Quinn College | Awarded $75,000, HEW |
| *Curriculum Development for Disadvantaged Students*,<br>Cammie L. Sleet<br>The Shaw College at Detroit | Awarded $133,000, HEW |
| *Training Program in Cooperative Education for Administrators and Faculty of Developing Institutions*<br>James N. Harris<br>Tuskegee Institute | Awarded $25,000, HEW |
| *Environmental Biology*, a curricular innovation<br>Willis Brown<br>Langston University | Implemented |
| *TNI News Bulletin*, abstracts of news items of interest to black institutions | First issue mailed in January 1971 to participants in '70 workshops |
| Three mini-conferences for evaluation of 1970 workshops and follow up | Held during 1970–71 in Birmingham, Greensboro, and Memphis |
| Total funds awarded | $547,000 |



*Emery F. Bacon, former executive director of the Federal Interagency Committee on Education (FICE), addressed July participants on government programs that might support the academic development of black institutions.*

Other promising proposals and projects resulting from the workshops and presently under review by granting agencies or being prepared for resubmission after preliminary review are:

*Science and Technology and Human Survival*, Willis T. Brown, Langston University.

*Developing a Sense of Community in Terms of Effective Utilization Indicators of Social Change*, Marcheta Z. Davis, Mary Holmes College.

*Motivational Upgrading Program for the Administrators, Faculty, and Staff of Paul Quinn College*, L. C. Wood, Paul Quinn College

*Academic Achievement and Motivational Upgrading Program for Incoming Students of Paul Quinn College*, L. C. Wood, Paul Quinn College

*Consortium for Interinstitutional Cooperation*, Lillie K. Singleton, T. A. Lawson State Junior College

*Cooperative Projects and Humanities Course Exchange Between the University of Alabama and Stillman College*, Joyce O'Rourke, Stillman College

*Preparation of a Comprehensive Questionnaire to Identify Faculty Expertise in TNI's*, Wynelda E. Satisfield, T. A. Lawson State Junior College

*An Interdisciplinary, Inner-City Internship Training Program*, James T. Coleman, Southern University

*How to Help Young Drop-Outs Become Productive Citizens*, Odessa Nelson, Allen University

*An Assessment of the TNIs' Capabilities*, William H. McArthur, Knoxville College

*An Interdisciplinary Approach to Minorities' Environmental Problems*, Joe Hargrove, Arkansas A M & N College

*An Interdisciplinary Approach to the Teaching of English and Political Science to Disadvantaged Students*, Saralou R. Gifford, Philander Smith College

*National Student Leadership Conference for Predominantly Black Educational Institutions*, Charles Mason, student, Knoxville College

*Neighborhood Environmental Improvement Campaign*, James W. Russell, Tuskegee Institute, and Peggy L. Allen, Jackson State College

*Life and Physical Science Co-Op Pre-Proposal*, Eddie C. Smith, Coahoma Junior College

*Summer Workshop in Environmental Education and Curriculum*, E. C. Fonsworth, Bishop College

*Student Project in Environmental Education*, E. C. Fonsworth, Bishop College

*Workshop for Teachers in Traditionally Black Institutions*, Ernest Berry, Cheyney State College

*In-Service Seminar for Faculty and Staff of Junior and/or Community Colleges*, Desiree E. Jett, Essex County College

*The Role of the Black College in Developing Consumer Awareness*, Sylvia Plutchok, Clark College

*Scientific Communications Center*, Brady Harden, Kenneth Jones, Charles Mason, and Brenda Wiggins, Knoxville College students

*Teacher Development for Desegregating Schools*, Joseph E. Taylor, Bethune-Cookman College

*Inter/transdisciplinary Approach to the Humanities*, McKinley Newton, Philander Smith College

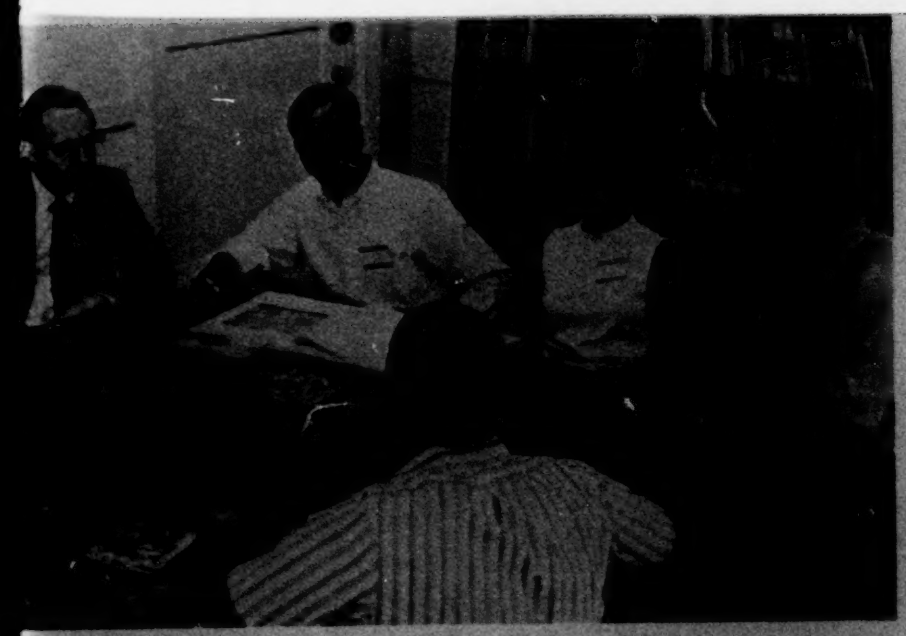
*Professor in Residence* (at ORAU to represent black institutions), Paul E. Parker, North Carolina A & T State University

*Rehabilitation Work Experience for Students Enrolled at Traditionally Black Institutions*, Paul E. Parker, North Carolina A & T State University

*A Program for Grants in Lieu of Tuition to Underdeveloped Colleges Whose Students Receive Summer Traineeship Awards*, David O. Findley, Virginia State College

*Consortium for Dietetic Services*, a cooperative venture in which students would spend one year at Selma University and a second year at Tuskegee Institute, Johnnie Prothro and (Mrs.) Rowena Cleveland, Tuskegee Institute and Selma University

***Ralph W. Tyler, director emeritus of the Center for Advanced Study in the Behavioral Sciences at Stanford University and founding secretary of the National Academy of Education, was among workshop speakers.***



***Daily sessions included formal lecture and panel presentations by Oak Ridge and visiting representatives, followed by meetings of small work groups to develop projects and proposals.***

*Human Resources Development*, Margaret W. Knighton of Southern University and Joseph W. Letson, Central State University

*Cooperative Research Involving Demographic Survey of TNI Communities*, Walter W. Gibson, LeMoyne-Owen College

*TNI Clearing House*, Lester B. Johnson, Savannah State College

*Research Course in History/Interim*, Charles Mason, student, Knoxville College

*Community Involvement Course*, Charles Mason, student, Knoxville College

*Black Contemporary Philosophy Course/Interim*, Charles Mason, student, Knoxville College

*Effect of Demography on Black Psychology and Sociology*, Paul E. Parker, North Carolina A & T State University

*The Impact of Ecology on the Economically and Socially Deprived Community*, Ernest Berry, Cheyney State College

*Making College Education Relevant: Answering the Needs of the '70's*, Elaine Ferguson, Essex County College

*An Interdisciplinary Approach to the Teaching of Health Science Technology*, Little K. Singleton, T. A. Lawson State Junior College

*Oak Ridge Institute for Black GI's Not Already Learning (O.R.I.G.I.N.A.L.)*, Roscoe S. Brown, Grambling College

*Institute for Counselor Rehabilitation*, Freddie L. Groomes, Florida A & M University

*Extending the Dimensions of Developing Manpower Resource Potential for Employment in Area of Nuclear Energy Applications to Peaceful Uses*, Willis L. Brown, Langston University

*Training for Developing Black Leadership*, Garrett F. Weaver, West Virginia State College

**Post Workshops Activities and Participant Evaluation**

A precise evaluation of the impact created by the workshop is a challenging task and, possibly, an unattainable goal. One of the evaluative devices used was to reconvene the participants in small groups at different campuses. Three such "mini-conferences" were held: October 28 and 29, 1970, in Birmingham, Alabama, at T. A. Lawson State Junior College; November 19 and 20, 1970, in Greensboro, North Carolina, at North Carolina A & T State University; and January 28 and 29, 1971, in Memphis, Tennessee, at LeMoyne-Owen College. These conferences gave an excellent insight into

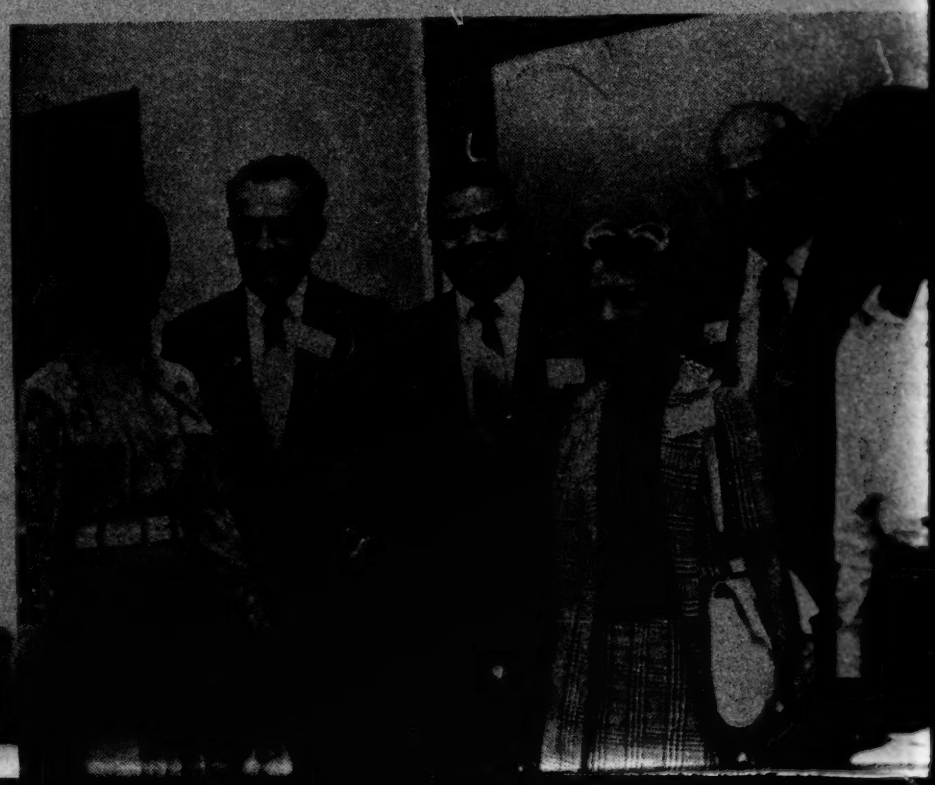
the participants' reactions to their experiences in Oak Ridge and provided a variety of new ideas and suggestions for additional activities. There were an average of 20 participants at each of the three conferences, which became forums for discussion of institutional, post-Oak Ridge activities and for development of inter-institutional teams of faculty and administrative staff to initiate new activities.

One result was the establishment of a newsletter to satisfy the need for interinstitutional communication of new ideas and occurrences. The first issue of a "TNI News Bulletin" was sent out by ORAU to all workshop participants in January 1971 and was well received by its audience.

At the conclusion of the series of three follow up conferences, a small representative group of the participants was invited to meet as a task force to discuss plans for and to advise ORAU on the directions of its future relationships with black institutions. This group (LINC) comprises the following members: George Ferguson, Howard University, Chairman; Calvin O. Atchison, Tennessee State University; Z. W. Dybczak, Tuskegee Institute; Sister M. Eucharista, Xavier University of New Orleans; W. W. Grigorieff, ORAU; Freddie L. Groomes, Florida A & M University; Joe Hargrove, Arkansas A M & N College; Hardy Liston, Jr., University of Tennessee; James U. Lowe, Meharry Medical College; William H. McArthur, Knoxville College; Paul E. Parker, North Carolina A & T State University; Lillie K. Singleton, T. A. Lawson State Junior College; and Herman B. Smith, National Association of State Universities and Land-Grant Colleges.

The new committee has met on two occasions and has

*Faculty participants Joyce O'Rourke, Stillman College, Tuscaloosa, Alabama, and Hattie L. Perkins, Grambling College, Grambling, Louisiana, with Dr. Grigorieff; William H. McArthur, chairman of the Division of Natural Sciences and Mathematics at Knoxville College, who was workshop coordinator; Elliot S. Pierce, director of the AEC Division of Nuclear Education and Training; and Knoxville College student body president Charles Mason, one of four undergraduate participants in the 1970 workshops.*



*Attendance at the 1970 workshops during June and July totaled 129 faculty members and administrators from 67 black colleges.*

delineated the following purposes for its continuing program of work:

1. To make itself known to TNI's, governmental agencies, foundations, and other educational organizations.
2. To keep informed of ongoing and projected programs of ORNL-ORAU, and other governmental agencies and foundations to:
   a. Express to ORNL, ORAU and others the consciences and aspirations of the black educational community and to evaluate programs (proposals) as they relate to TNI's.
   b. Urge, through existing organizations, such as the Office for the Advancement of Public Negro Colleges, Institute for Services to Education, College Service Bureau, Federal Interagency Committee on Education, and others, a deeper interest and involvement on the part of TNI's in ORNL-ORAU, and other governmental and foundation programs.

The composition of the group will, in general, remain as it now exists although there may be changes both in the designation of individual members and in the chairmanship. Various resource persons will be invited to meet with the group as such needs become apparent.

One further result from the 1970 workshops has been three visits under the Research Associates program to the Oak Ridge National Laboratory by faculty of black institutions and one appointment under the Faculty Research Participation program of ORAU.

# 1969 workshop for six black institutions offering undergraduate degrees in engineering

In keeping with the national interest in promoting and improving education in all sectors, Oak Ridge Associated Universities conducted a four-week workshop, August 4–29, 1969, to acquaint faculties of six traditionally Negro institutions having engineering curricula with opportunities for their development through participation in programs of the AEC, its contractors, and other government agencies.

Fourteen faculty members of institutions offering engineering degrees and three from science departments of liberal arts institutions participated, for varying periods, in the workshop. Five attended the entire session.

The six institutions represented were: Howard University, Washington, D.C.; North Carolina A & T State University, Greensboro; Prairie View A & M College, Prairie View, Texas; Southern University, Baton Rouge, Louisiana; Tennessee State University, Nashville; and Tuskegee Institute, Tuskegee, Alabama.

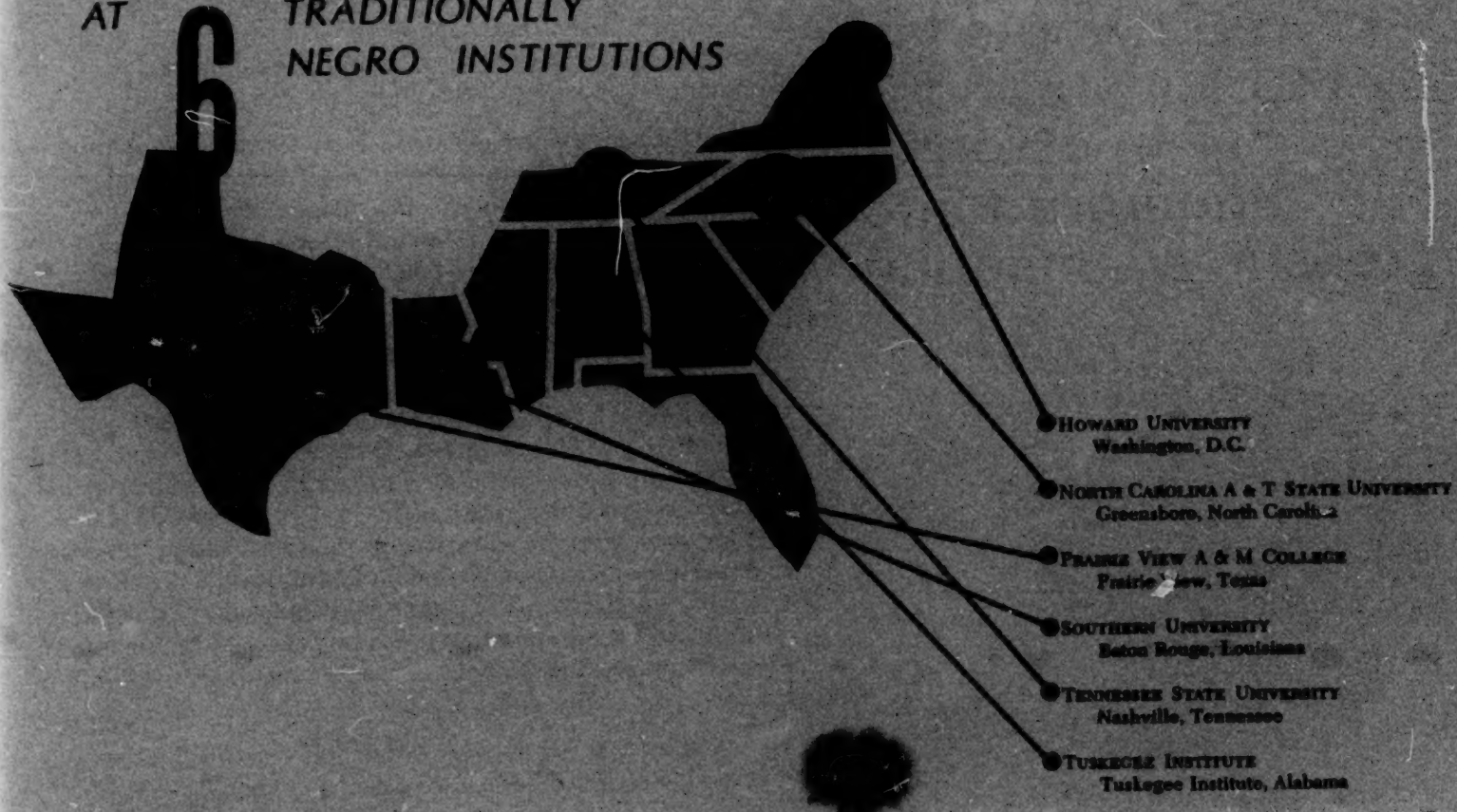
Contributing to the program as speakers and discussants in both formal sessions and informal workshops were more than 70 persons representing Oak Ridge Associated Universities; the Atomic Energy Commission and its Oak Ridge, Chicago, and Savannah River Operations; the Nuclear Division, Union Carbide Corporation; E. I. duPont de Nemours & Company; Argonne, Brookhaven, and Oak Ridge National Laboratories; Lawrence Radiation Laboratory; the National Science Foundation; U.S. Department of Health, Education, and Welfare; National Aeronautics and Space Administration; Federal Interagency Committee on Education; and the University of Tennessee.

The workshop sessions were largely unstructured to allow dialogue and opportunities for exploring sources of

*Fig. 2 Development Proposal Resulting from 1969 Oak Ridge Workshop*

*proposal to strengthen*

ENGINEERING EDUCATION
AT TRADITIONALLY
NEGRO INSTITUTIONS



support and possibilities for expansion of institutional development.

The general projects developed by the workshop have to date brought assistance totaling $310,000 to the participating institutions. In addition, projects proposed by individual faculty members have been supported by grants of $253,444, for a total of $563,444 resulting from the 1969 activities.

A number of the positive results of the workshop are described in the paragraphs that follow on specific new activities stimulated by this first Oak Ridge program for Negro institutions.

**Pre Co-op Program**

The 1969 workshop participants unanimously agreed that fresh and innovative approaches must be taken to increase the enrollment in scientific and engineering disciplines at predominantly black institutions. At the mid-point of the four-week workshop, they came up with the idea of a pre-co-op scheme that would provide a high school graduate work experience during the summer prior to entering the university and, subsequently, financial assistance during the freshman year of a regular co-op program.

It was enlightening and exciting to witness and to participate in the development of this new program. On Thursday of the second week, the group had been invited to visit the Savannah River Laboratory, operated by the Du Pont Company for the AEC. A general presentation of the Laboratory's activities and conducted visits to selected points of interest were followed by a general discussion session. Isaac Porche of Southern University raised the question whether there were any mechanisms or activities at Savannah River Laboratory or other AEC laboratories to make it possible for Negro high school seniors to participate in a summer program preceding their freshman year at an engineering school as a cooperative student. The answer was that this type of arrangement was not available but it certainly was not impossible to conceive.

The following day, back in Oak Ridge, participants pursued the idea further and identified some of the necessary ingredients to make the program meaningful: 1) stipends during the pre-freshman summer, 2) financial assistance for books and fees in the freshman year, and 3) partial financial support of the faculty member coordinating this activity on the campus. At this point, ORAU staff contacted Charles Kuykendall, director of the Central Employment Office of Union Carbide's Nuclear Division, to inquire about the feasibility of such an undertaking. A joint conference was rapidly arranged, which resulted in agreement in principle by Union Carbide that the proposal was in line with their general thinking and that there was no specific reason why it could not be funded.

By the third week of the workshop, a formal proposal had been prepared by the six institutions and submitted to Union Carbide. On the day before the participants left Oak Ridge, Roger F. Hibbs, president of Nuclear Division, met with the group and assured them that, barring unforeseen circumstances, the project would be funded and would start in the summer of 1970. The yearly cost of this activity was estimated at $61,000, not including payments to the students. The total cost of the three-year program was estimated at $600,000. The result was a splendid example of satisfying a demonstrated need with a significant new activity.

Five black schools (Howard University, North Carolina A & T State University, Southern University, Tennessee State University, and Tuskegee Institute) recruited 29 high-

school graduates for the program, 19 of whom spent the summer of 1970 in Oak Ridge; the remaining 10 were younger than 18 and had to find different summer activities. By the end of the 1970–71 fall semester, 28 of these students were participating in the regular co-op programs of the five participating institutions.

A further interesting result is the establishment of a similar program by the Du Pont Company at the Savannah River Laboratory, involving three entering freshmen each from two institutions: North Carolina A & T and Tuskegee. All six students spent the summer of 1970 at Savannah River and became enrolled at their respective colleges in the fall.

After results of the three-year pilot study are evaluated, it is envisaged that the program may be extended to other schools and industries. In the meantime, the 34 black students represent a significant addition to the available manpower pool of black scientists and engineers, very few of whom would have been able to go to college without the assistance of this program.

**Developmental Proposal for Engineering Education**

The six traditionally Negro schools of engineering, from which 70 percent or more of the nation's Negro engineers have been graduated, undertook, at the suggestion of President A. I. Thomas of Prairie View A & M College, a self study and developed with staff assistance from ORAU a long-range program to strengthen existing programs of engineering education. Following an organizing meeting at Prairie View in March 1969, a series of work sessions were arranged with deans of engineering of the six schools by Hardy Liston, Jr., professor and chairman of the Department of Mechanical Engineering at North Carolina A & T State, who was then serving as professor-in-residence at ORAU.

A broad four-year program was formulated to develop faculties, curricula, physical plants, library resources, student recruitment and counseling, administration, supporting services, research, and long range planning. Meetings were arranged by Marion Bowden, assistant for equal employment opportunity programs, Office of the General Manager, AEC Headquarters, with the presidents of the six institutions, representatives of the U.S. Atomic Energy Commission, Roger F. Hibbs of Union Carbide, and, finally, with high ranking executives of 16 major companies in June 1970 in New York City to present the formal proposal, which requested $18,152,320 in development assistance for the six institutions over a period of four years.

Although the large total requested has not been subscribed to by the industrial concerns, a grant of $270,000 for a three-year span has been made by the Du Pont Company. Another grant of $30,000 for one year by Westinghouse and several others are being processed. ORAU has offered to assist the six institutions in broadening the base of possible support and will be working with a large number of industrial concerns to secure additional funding.

**Professor-in-Residence**

At the start of ORAU's activities with black institutions, it was realized that a more complete knowledge of educational problems confronting the blacks and a valid line of communication between the Negro and the white educational thinking were necessary. One solution was to create at ORAU the position of "Professor in Residence," to be staffed for periods of a semester or so by a faculty member of a black

*Planning for 1969 workshop began in January 1969 at a meeting in Oak Ridge for deans of engineering and faculty representatives of traditionally Negro institutions and their counterparts in neighboring, predominantly white institutions. The group met under ORAU auspices with representatives of the Atomic Energy Commission, Oak Ridge National Laboratory, and the Nuclear Division, Union Carbide Corporation, which operates the major Oak Ridge nuclear production and research facilities for the AEC.*

*First ORAU workshop in August 1969 involved 17 faculty members from the six black institutions that offer baccalaureate-level programs in engineering. Represented were: Howard University, Washington, D. C.; North Carolina A & T State University, Greensboro; Prairie View A & M College, Prairie View, Texas; Southern University, Baton Rouge, Louisiana; Tennessee State University, Nashville; and Tuskegee Institute, Tuskegee, Alabama.*

institution. The first incumbent was Hardy Liston, Jr., of North Carolina A & T State University, who served with ORAU from June through December 1969. The development, organization, and conduct of the 1969 workshop and the gathering and blending of a multitude of resources to produce the $18,000,000 proposal were among his major contributions.

Subsequent to his return to his campus, Professor Liston accepted an appointment as assistant vice chancellor for academic affairs at the University of Tennessee, Knoxville.

The second ORAU Professor in Residence, for the period of February 2 to August 31, 1970, was Professor A. V. Jett, on leave of absence from his position as manager of the Computer Center at Tuskegee Institute and enroute to Purdue University to assume an NSF faculty improvement appointment. He very ably and successfully helped ORAU to produce the 1970 workshops, and to evaluate and summarize this activity.

[redacted] modified scheme was arranged for the 1970–71 post-

workshop period; Professor William H. McArthur, chairman of the Division of Natural Sciences and Mathematics at Knoxville College, who spent about a quarter of his time at ORAU during the 1970–71 academic year, was primarily responsible for the conduct of the first three mini-conferences and for the main thrust of ORAU's assistance in the development of proposals by workshop participants.

**Resident Representatives**

One direct consequence of the 1969 workshop was the establishment of "ORAU Resident Representatives" on the campuses of black institutions. This program offered travel contracts to participants in the workshop, providing them travel expenses for a limited number of trips connected with projects initiated in Oak Ridge.

**Research Associates**

A program of "Research Associates" was initiated in the summer of 1969. It provides an opportunity to faculty members to establish meaningful contacts with scientists and engineers of the Oak Ridge area in the expectation that such periodic contacts either in Oak Ridge or back on their own campuses would result in research activities mutually beneficial to both parties involved. In the academic year 1969–70, three such arrangements were started.

***Program for 1969 workshop included field trip to the AEC's Savannah River Laboratory, Aiken, South Carolina, to discuss educational research opportunities available there for students and faculty.***

## PROGRAMS AND PROJECTS DEVELOPED BY THE 1969 WORKSHOP PARTICIPANTS

| Cooperative Activities | Status |
|---|---|
| Pre-Co-op Program to increase student enrollment in science and engineering through work experiences | 28 students involved in 1970 |
| Prospectus for three 1970 Oak Ridge workshops | Four workshops conducted with 129 participants |
| Mobile laboratory for 4- to 5-week teaching program at Negro institutions | Awarded 10,000 by AEC; visits to Prairie View, Southern University and Tennessee State scheduled in '71 |
| *Resident Representatives*, a two-way reciprocating channel between black faculty and ORAU | Initiated |
| *Research Associates*, a program of interaction between black faculty and Oak Ridge scientists and engineers | Three visits to Oak Ridge by black faculty in 1970 |
| $18 million proposal for financial assistance from industry | Dupont awarded $270,000; Westinghouse awarded $30,000 |
| Total | $310,000 |

### Individual Projects

**Howard University**

| | |
|---|---|
| *Physical Chemical Studies of the Interactions Between Metal Ions and Biologically Important Molecules*, Peter Hambright, principal investigator. | Awarded $28,000, AEC |
| *Studies on Thermoluminescence and Infrared Absorption of Radiation Damage in Optically Transparent Materials*, A. N. Thorpe, principal investigat[redacted] | Awarded $20,000, AEC |

| | Status |
|---|---|
| *Theoretical Study on the Fine and Hyperfine Structure of a Rovibronic Linear Triatomic Molecule*, Liu-Yung Chow Chiu, principal investigator. | Awarded $25,000, AEC |
| **North Carolina A & T State University** | |
| *A Study of Sandwich Cylinders with Various Moduli*, Paul E. Parker, principal investigator | Awarded $12,000, Union Carbide Nuclear Division |
| *A Proposal to Study the Effect of Surface Treatment on Rate of Reaction of Gases with Uranium*, B. M. Botros, principal investigator. | Awarded $25,000, Union Carbide Nuclear Division |
| **Southern University** | |
| *Development of Slide-Tape Lectures, Civil Engineering in the Nuclear Age*, Ray E. Ingram, principal investigator. | Awarded $6,168, AEC |
| *Distorted Wave Calculations and Angular Correlation Studies*, K. H. Liu, M. A. Toosi, Zorawar Singh, and Edgar Link. | Awarded $51,431, AEC |
| *Chelation of Transition Metals by Derivatives of 3-Nitroso-2-Pyridinol and 5-nitroso-4-Pyrimidol*, Curtis M. McDonald, principal investigator. | Awarded $22,000, AEC |
| **Tennessee State University** | |
| *Gaseous Ion Chemistry: Analytical Applications*, R. P. Torrey, principal investigator. | Awarded $39,845, AEC |
| **Tuskegee Institute** | |
| *Traineeships Program in Nuclear Engineering*, Z. W. Dybczak, principal investigator. | Awarded $24,000, AEC |
| *Depository Library at Tuskegee Institute*, a book collection to be given to the Institute by AEC | Established in January 1971 |
| Total | $253,444 |
| Grand Total (Cooperative Activities and Individual Projects) | $563,444 |

# summary and reflections

The preceding sections of this report describe the concept, operation, and principal results of the workshops conducted in Oak Ridge during the summers of 1969 and 1970 for faculty and administrators of traditionally Negro institutions of higher learning.

The most important and tangible impact of these activities is, without doubt, the substantial funding already awarded to the participating black institutions, both by governmental and private sources, for new projects and programs of their own design.

The sum of these contract and grant commitments both for cooperative activities among institutions and for individual projects stimulated by the 1969 workshop is now $563,444. For 1970, with many proposals from participants still under review by federal agencies and other funding sources, the total is $547,000—again representing both individual project support and funds for cooperative activities.

Thus, over the two-year period beginning in 1969, new programs totaling more than $1.1 million have been initiated at black institutions as a result of participation by their faculties and administrators in the Oak Ridge workshops. This sum, while modest in relation to the urgent, overall financial needs of these schools, is nonetheless indicative of the effectiveness and promise of the workshop-type activity in helping these institutions 1) to realize their own potentials more fully and 2) to bring to fruition many promising new avenues for further strengthening and development of their academic programs.

ORAU obviously has benefited in many ways from its participation with traditionally Negro institutions in these workshops and developmental activities. It is not as easy, however, to define the specific contributions ORAU has been

*Participants in pilot cooperative education program that grew out of 1969 workshop met with Roger F. Hibbs, president of Union Carbide Corporation's Nuclear Division, for briefing on the program. They are, from left, Hardy Liston, Jr., then chairman of the Department of Mechanical Engineering at North Carolina A & T State University; Isaac R. Porche, Jr., professor in the Department of Electrical Engineering, Southern University; Mr. Hibbs; George A. Ferguson, director of cooperative education, Howard University; Andrew Minor, director of cooperative education, Tennessee State University; and George Howard III, director of cooperative education, Tuskegee [illegible]itute.*

*First two ORAU professors in residence from black institutions were Hardy Liston, Jr., left, then chairman of the Department of Mechanical Engineering at North Carolina A & T, who served a seven-month appointment in 1969, and Arthur Victor Jett, Jr., manager of the Computer Center at Tuskegee Institute, whose assignment covered a similar period in 1970.*

able to make, through the same activities, to the further strengthening of black institutions of higher learning. Perhaps, this most logically would include assistance in the identification of strengths and needs of these institutions, especially for the 1969 group, or a helping hand in the development of new interdisciplinary activities and projects, or knowledge of educational interests of various governmental, industrial, and private organizations and working experience with their key personnel.

Most probably, however, the main contribution has been simply to bring together, in some cases for the first time, white and black educators to discuss, design, and develop new activities.

Future relationships with the black institutions might involve a variety of activities. A principal contribution would be to help initiate new activities in cooperation with and on behalf of either individual institutions or cooperating groups of institutions. It seems to be extremely important that ORAU should continually strive to divest itself of operating responsibility for projects that could and should be conducted directly by the institutions themselves.

Conceivably, services to be rendered might involve consultative and advisory assistance; assistance in the initiation, promotion, operation, and follow through of pilot projects; joint cooperative projects with black schools and other minority institutions; subcontractual arrangements from black institutions to ORAU for conducting certain parts of a program; continuation and broadening to other disciplines of the "professorship in residence" at ORAU; establishment of a conference series at black campuses, similar in concept to the Gordon Research Conferences of the American Association for the Advancement of Science, to facilitate communications among institutions; and other services, such as the "TNI News Bulletin," designed to strengthen communications both between and among institutions on problems of common interest and with governmental and private sources of support for academic development.

The establishment of the new advisory committee, LINC, under the chairmanship of Professor George Ferguson of Howard University, provides a mechanism for continuing renewal and extension of this partnership between ORAU and the black academic community. For its part, ORAU welcomes and pledges its continuing assistance to what has been, and promises to continue, a mutually rewarding and strengthening relationship through these cooperative activities.

# appendix a

## 1970 WORKSHOP SCHEDULES, SPEAKERS, AND PARTICIPATING FACULTY AND ADMINISTRATORS

# first faculty session

**JUNE 8-JULY 3, 1970 ● OAK RIDGE, TENNESSEE**

| Monday, June 8 | Tuesday, June 9 | Wednesday, June 10 | Thursday, June 11 | Friday, June 12 |
|---|---|---|---|---|
| 9:00 a.m.<br>Welcomes and Introduction<br>H. M. Roth<br>W. H. McArthur<br>W. W. Grigorieff | 9:00 a.m.<br>MAN, ENVIRONMENT AND THE WORLD OF WORK<br>J. L. Liverman | 9:00 a.m.<br>SUMMARY AND EVALUATION OF 1969 WORKSHOPS<br>Hardy Liston, Jr. | 9:00 a.m.<br>LANGUAGE ARTS III<br>Charline Conyers | 9:00 a.m.<br>NATIONAL ENVIRONMENTAL POLICY<br>David J. Rose |
| 10:30 a.m.<br>PROJECTIONS<br>E. Pierce | 2:00 p.m.<br>SPACESHIP EARTH<br>W. G. Pollard | 10:30 a.m.<br>MODEL CITIES<br>Johnny Ford | 1:00 p.m.<br>Tour to ORNL, TVA, Other Facilities, American Museum of Atomic Energy, City | 11:00 a.m.<br>USAEC PROGRAMS<br>S. R. Sapirie |
| 2:00 p.m.<br>THE POLITICS OF CHANGE<br>Elias Blake, Jr. | 3:30 p.m.<br>DTIE<br>Don Sample | 2:00 p.m.<br>PLANNING FOR DEVELOPMENT OF SCIENTIFIC STUDIES IN COLLEGES<br>Alexander Hollaender | | 2:00 p.m.<br>THE POPULATION PROBLEM<br>R. M. Kniseley |
| 5:00 p.m.<br>Mixer, Courtesy of ORAU | 7:00–9:00 p.m.<br>LANGUAGE ARTS I<br>Charline Conyers | 4:00–6:00 p.m.<br>LANGUAGE ARTS II<br>Charline Conyers | | |

| Monday, June 15 | Tuesday, June 16 | Wednesday, June 17 | Thursday, June 18 | Friday, June 19 |
|---|---|---|---|---|
| 9:30 a.m.<br>URBAN DEVELOPMENT<br>James Jordan | 9:00 a.m.<br>TRAINING AND TECHNOLOGY<br>Wendell Russell | 9:00 a.m.<br>ENVIRONMENTAL QUALITY AND PUBLIC POLICY<br>Interactive Seminar by Oak Ridge National Laboratory Panel | 9:00 a.m.<br>Workshop II<br>CLINIC ON PROPOSALS A<br>Paul Carnell<br>J. N. Orcutt | 9:00 a.m.<br>Workshop IV<br>CLINIC ON PROPOSALS B<br>Paul Carnell<br>J. N. Orcutt |
| 2:00 p.m.<br>Workshop I<br>M. Bowden<br>H. M. Roth<br>W. W. Grigorieff<br>G. Courtney | 2:00 p.m.<br>TECHNOLOGY AND SOCIETY<br>Edgar G. Epps | 2:00 p.m.<br>RESOURCES<br>W. G. Pollard | 2:00 p.m.<br>Workshop III<br>STUDENTS' VIEWS<br>Brady Harden<br>Kenneth Jones<br>Charles Mason<br>Brenda Wiggins | 2:00 p.m.<br>Workshop V<br>ADMINISTRATORS' VIEWS |
| | | 6:00 p.m.<br>Picnic for Participants and Interested Oak Ridgers | 3:30 p.m.<br>ENERGY AND ENVIRONMENT<br>A. M. Weinberg | |

Optional: EPDA COMPONENT–OAK RIDGE WORKSHOPS
1:00–3:00 p.m. / Afro-American Studies / Dr. Tobe Johnson

**NOTE:** First workshop for administ[redacted]ed program for week of June 15.

| Monday, June 22 | Tuesday, June 23 | Wednesday, June 24 | Thursday, June 25 | Friday, June 26 |
|---|---|---|---|---|
| 9:00 a.m.<br>Workshop VI<br>CURRICULAR REVISION<br>W. H. McArthur<br>Staff<br><br>3:00–5:00 p.m.<br>READING<br>Orlando Taylor | 9:00 a.m.<br>THE ROLE OF TECHNOLOGY AND ORGANIZATION IN HIGHER EDUCATION<br>R. A. Horton<br><br>1:00 p.m.<br>Tours: Depart Teacher Training Building for Biology Division, Y-12<br><br>3:00 p.m.<br>Depart Biology Division, Y-12, for Regional Science Experience Center | 9:00 a.m.<br>Tour: Depart Teacher Training Building for Daniel Arthur Rehabilitation Center<br><br>11:15 a.m.<br>Forum: THE ENVIRONMENT: A MULTI-DISCIPLINARY APPROACH<br><br>1:00 p.m.<br>Workshop VII<br>STUDENT PROJECTS<br><br>3:15 p.m.<br>Workshop VIII<br>FACULTY RESEARCH | 9:00 a.m.<br>USAEC RESEARCH<br>Paul W. McDaniel<br><br>2:00 p.m.<br>Forum<br>BLACK INSTITUTIONS AND THE SOCIAL ORDER<br><br>3:30 p.m.<br>A. M. Weinberg | 9:00 a.m.<br>Workshop IX<br>WHENCE?<br><br>2:00 p.m.<br>THE UNIVERSITY'S RESPONSE<br>Arthur G. Hansen |

Optional: EPDA COMPONENT–OAK RIDGE WORKSHOPS
Tuesday, June 23 / 10:30 a.m.–12:30 p.m. / READING / Orlando Taylor
Wednesday, June 24 / 1:00–3:00 p.m. / READING / Orlando Taylor

| Monday, June 29 | Tuesday, June 30 | Wednesday, July 1 | Thursday, July 2 | Friday, July 3 |
|---|---|---|---|---|
| 9:00 a.m.<br>Task Group Meetings to Formulate Ideas, Conclusions, Plans, for Implementation<br><br>3:15 p.m.<br>Workshop X<br>STUDENT PROJECTS<br>Participants | 9:00 a.m.<br>Task Group Meetings to Formulate Ideas, Conclusions, Plans, for Implementation<br><br>1:00 p.m.<br>DEMOGRAPHY<br>Everett Lee<br><br>3:15 p.m.<br>Workshop XI<br>FACULTY RESEARCH<br>Participants | 9:00 a.m.<br>Task Group Meetings to Formulate Ideas, Conclusions, Plans, for Implementation, Proposed Solutions<br><br>3:15 p.m.<br>INSTITUTIONAL OUTREACH<br>Andrew Goodrich | 9:00 a.m.<br>Workshop XII<br>INTERACTION BETWEEN THE TWO-YEAR AND FOUR-YEAR COLLEGES<br>Andrew Goodrich<br><br>1:00 p.m.<br>Task Group Reports–Ideas, Conclusions, Proposed Solutions, Plans for Implementation<br><br>3:00 p.m.<br>Evaluation | 9:00 a.m.<br>GRADUATION |

Optional: EPDA COMPONENT–OAK RIDGE WORKSHOPS
Robert Kansky

Monday, June 29
9:00 a.m.
THE HISTORY OF THE TEACHING OF MATHEMATICS
A. WHY MATHEMATICS?
B. WHAT MATHEMATICS SHOULD BE TAUGHT?

Tuesday, June 30
9:00 a.m.
PARADIGM FOR DISCOVERY TEACHING IN MATHEMATICS (WITH EMPHASIS ON MOTIVATING STUDENTS)

Wednesday, July 1
9:00 a.m.
CURRICULUM PROJECTS IN MATHEMATICS–GRADES 8-12 (WITH SPECIAL EMPHASIS ON LOW ACHIEVERS)

# second faculty session

**JULY 6-31, 1970 ● OAK RIDGE, TENNESSEE**

| Monday, July 6 | Tuesday, July 7 | Wednesday, July 8 | Thursday, July 9 | Friday, July 10 |
|---|---|---|---|---|
| 9:00 a.m.<br>ORIENTATION<br>W. H. McArthur<br>A. V. Jett, Jr.<br>W. W. Grigorieff<br><br>10:30 a.m.<br>USAEC PROGRAMS<br>S. R. Sapirie<br><br>1:15 p.m.<br>DNET PROJECTIONS<br>E. Pierce | 9:00 a.m.<br>ENVIRONMENT<br>J. L. Liverman<br><br>1:15 p.m.<br>LANGUAGE ARTS I<br>Charline Conyers<br><br>3:30 p.m.<br>Workshop I<br>Staff | 9:00 a.m.<br>TRAINING AND TECHNOLOGY<br>Wendell Russell<br><br>1:15 p.m.<br>LANGUAGE ARTS II<br>Charline Conyers<br><br>3:30 p.m.<br>Workshop II<br>Staff | 9:00 a.m.<br>DEMOGRAPHY<br>Everett Lee<br><br>1:15 p.m.<br>LANGUAGE ARTS III<br>Charline Conyers<br><br>3:30 p.m.<br>Workshop III<br>Staff | 9:00 a.m.<br>POLITICS OF CHANGE<br>Elias Blake, Jr.<br><br>1:00 p.m.<br>Tour I—Oak Ridge Facilities<br><br>6:00 p.m.<br>PICNIC (Dutch) |
| **Monday, July 13** | **Tuesday, July 14** | **Wednesday, July 15** | **Thursday, July 16** | **Friday, July 17** |
| 9:00 a.m.<br>EDUCATIONAL ASSISTANCE<br>G. C. Kyker<br><br>1:15 p.m.<br>Workshop IV<br>Staff | 9:00 a.m.<br>MODEL CITIES<br>Johnny Ford<br><br>1:15 p.m.<br>Workshop V<br>Staff | 9:00 a.m.<br>RESOURCES<br>W. G. Pollard<br><br>1:15 p.m.<br>Workshop VI<br>Staff | 9:00 a.m.<br>SAFETY<br>J. A. Lenhard<br><br>1:15 p.m.<br>Tour II<br>1. Science Center<br>2. Daniel Arthur Rehabilitation Center | 9:00 a.m.<br>NATIONAL ENVIRONMENTAL POLICY<br>D. J. Rose<br><br>1:15 p.m.<br>TECHNOLOGY AND SOCIETY<br>E. G. Epps<br><br>3:30 p.m.<br>REFLECTIONS AND PROSPECTIVES<br>W. W. Grigorieff |

| Monday, July 20 | Tuesday, July 21 | Wednesday, July 22 | Thursday, July 23 | Friday, July 24 |
|---|---|---|---|---|
| 9:00 a.m.<br>TWO-YEAR COLLEGES<br>Andrew Goodrich<br><br>10:30 a.m.<br>PROJECTIONS<br>E. Bacon<br>R. W. Tyler<br><br>1:15 p.m.<br>READING I<br>Ronald Williams<br><br>3:30 p.m.<br>Workshop VII<br>Staff<br><br>5:30 p.m.<br>RECEPTION | 9:00 a.m.<br>URBAN DEVELOPMENT<br>James Jordan<br><br>10:30 a.m.<br>EXPECTATIONS<br>R. W. Tyler<br><br>1:15 p.m.<br>READING II<br>Ronald Williams<br><br>3:30 p.m.<br>Workshop VIII<br>Staff | 9:00 a.m.<br>CLINIC ON PROPOSALS<br>Paul Carnell<br>J. N. Orcutt<br><br>1:15 p.m.<br>READING III<br>Ronald Williams<br><br>3:30 p.m.<br>Workshop IX<br>Staff | 9:00 a.m.<br>CLINIC ON PROPOSALS<br>Paul Carnell<br>J. N. Orcutt<br><br>1:15 p.m.<br>THE BLACK COLLEGE 1970—SOME INEVITABLE INSTITUTIONAL IMPERATIVES<br>Herman Smith<br><br>2:30 p.m.<br>ENERGY AND ENVIRONMENT<br>A. M. Weinberg<br><br>6:00 p.m.<br>PICNIC (Dutch) | 9:00 a.m.<br>ENVIRONMENTAL QUALITY SEMINAR<br>George Joseph<br><br>10:30 a.m.<br>TECHNOLOGY FORECASTING<br>R. H. Rea<br><br>1:15 p.m.<br>VIEW FROM WASHINGTON, D. C.<br>C. E. Larson |
| **Monday, July 27** | **Tuesday, July 28** | **Wednesday, July 29** | **Thursday, July 30** | **Friday, July 31** |
| 9:00 a.m.<br>POPULATION POLICIES<br>J. H. Gibbons<br><br>1:15 p.m.<br>MATHEMATICS I<br>Edward Carroll<br><br>3:30 p.m.<br>A. M. Weinberg | 9:00 a.m.<br>SPACESHIP EARTH<br>W. G. Pollard<br><br>1:15 p.m.<br>MATHEMATICS II<br>Edward Carroll<br><br>3:30 p.m.<br>Workshop X<br>Staff | 9:00 a.m.<br>EXCHANGE PROFESSORSHIPS<br>Hilton Smith<br><br>1:15 p.m.<br>MATHEMATICS III<br>Edward Carroll<br><br>3:30 p.m.<br>Workshop XI<br>Staff | 9:00 a.m.<br>EVALUATION AND PLANNING<br>W. H. McArthur<br>W. W. Grigorieff<br><br>1:15 p.m.<br>FILMS<br><br>2:30 p.m.<br>SCIENCE POLICY<br>A. M. Weinberg<br><br>8:00 p.m.<br>RECEPTION | 9:00 a.m.<br>GRADUATION |

**NOTE:** Second workshop for administrators shared program for week of July 20.

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# speakers

Emery Bacon, Executive Director
Federal Interagency Committee on Education
Department of Health, Education, and Welfare
4065, 400 Maryland Avenue
Washington, D. C. 20202

Elias Blake, Jr., President
Institute for Services to Education, Inc.
1527 New Hampshire Avenue, N.W.
Washington, D. C. 20036

Marion A. Bowden
Assistant for Equal Employment Opportunity Programs
Office of General Manager
U. S. Atomic Energy Commission
Washington, D. C. 20545

Paul H. Carnell, Assistant Director
Division of College Support
Bureau of Higher Education
U. S. Office of Education
330 Independence Avenue
Washington, D. C. 20201

Edward Carroll, Associate Professor
Department of Mathematics Education
New York University
New York, New York 10003

Peter H. Cohan, Executive Director
Cooperative Science Educational Center, Inc.
Oak Ridge, Tennessee 37830

Charline Conyers, Professor
Department of English
Cheyney State College
Cheyney, Pennsylvania 19319

George W. Courtney, Jr., Chief
University Relations Branch
Division of Nuclear Education and Training
U. S. Atomic Energy Commission
Washington, D. C. 20545

James W. Curlin, Project Leader
Watershed Ecosystem
Ecological Sciences Division
Oak Ridge National Laboratory
Oak Ridge, Tennessee 37830

Edgar G. Epps
Carver Research Foundation
Tuskegee Institute
Tuskegee Institute, Alabama 36088

Johnny Ford, Director
Model Cities Program
City of Tuskegee
Tuskegee, Alabama 36084

John H. Gibbons, Director
Environmental Quality Study Project
Oak Ridge National Laboratory
P. O. Box "X"
Oak Ridge, Tennessee 37830

Andrew Goodrich, Director
Minority Group Programs
American Association of Junior Colleges
One Dupont Circle, N.W.
Washington, D. C. 20036

W. W. Grigorieff
Assistant to the Director
Oak Ridge Associated Universities
P. O. Box 117
Oak Ridge, Tennessee [illegible]0

Arthur G. Hansen, President
Georgia Institute of Technology
Atlanta, Georgia 30332

Alexander Hollaender
Senior Research Adviser
Biology Division
Oak Ridge National Laboratory
Oak Ridge, Tennessee 37830

Robert A. Horton, Assistant to the Mayor
107 Metropolitan Courthouse
Nashville, Tennessee 37201

Arthur V. Jett, Jr., Manager
Computer Center
Tuskegee Institute
Tuskegee Institute, Alabama 36088

Tobe Johnson, Director
Center for Afro-American Studies
Atlanta University Center
Atlanta, Georgia 30314

James A. Jordan, President
Career Academy Learning Systems, Inc.
2301 Pennsylvania Avenue
Washington, D. C. 20037

George Joseph
Personnel Development and Systems
Oak Ridge National Laboratory
Oak Ridge, Tennessee 37830

Robert Kansky, Assistant Professor
Mathematics Education
Florida State University
The Florida State University
Tallahassee, Florida 32306

Ralph M. Kniseley, Assistant Chairman
Medical Division
Oak Ridge Associated Universities
Oak Ridge, Tennessee 37830

Granvil C. Kyker, Head
University Programs Office
Oak Ridge Associated Universities
P. O. Box 117
Oak Ridge, Tennessee 37830

Clarence E. Larson, Commissioner
U. S. Atomic Energy Commission
Washington, D. C. 20545

Everett Lee, Consultant
Civil Defense Research Project
Oak Ridge National Laboratory
P. O. Box "X"
Oak Ridge, Tennessee 37830

Joseph A. Lenhard, Director
Safety Division
U. S. Atomic Energy Commission
Oak Ridge, Tennessee 37830

Hardy Liston, Jr.
Assistant Vice Chancellor
for Academic Affairs
The University of Tennessee
Knoxville, Tennessee 37916

James L. Liverman
Associate Director
Oak Ridge National Laboratory
Oak Ridge, Tennessee 37830

William H. McArthur, Chairman
Division of Natural Sciences and Mathematics
Knoxville College
Knoxville, Tennessee 37921

Paul W. McDaniel
Director of the Division of Research
U. S. Atomic Energy Commission
Washington, D. C. 20545

Jack N. Orcutt
Junior College Specialist
Bureau of Higher Education
U. S. Office of Education
330 Independence Avenue
Washington, D. C. 20201

Elliot S. Pierce, Director
Division of Nuclear Education and Training
U. S. Atomic Energy Commission
Washington, D. C. 20545

William G. Pollard, Executive Director
Oak Ridge Associated Universities
P. O. Box 117
Oak Ridge, Tennessee 37830

Robert H. Rea, Vice President
Abt Associates, Inc.
Cambridge, Massachusetts 02138

David E. Reiche, Research Staff Member
Ecological Sciences Division
Oak Ridge National Laboratory
Oak Ridge, Tennessee 37830

David J. Rose, Director
Long-Range Planning
Oak Ridge National Laboratory
P. O. Box "X"
Oak Ridge, Tennessee 37830

Herman M. Roth, Director
Laboratory and University Division
U. S. Atomic Energy Commission
Oak Ridge, Tennessee 37830

Wendell H. Russell, Head
Training and Technology
Oak Ridge Associated Universities
Oak Ridge, Tennessee 37830

Samuel S. Sapirie, Manager
U. S. Atomic Energy Commission
Oak Ridge Operations
Oak Ridge, Tennessee 37830

Herman B. Smith, Jr., Director
Office for Advancement of Public Negro
Colleges
805 Peachtree Street, N.E., Suite 577
Atlanta, Georgia 30308

Hilton A. Smith
Vice Chancellor for Graduate Studies
and Research
The University of Tennessee
Knoxville, Tennessee 37916

Orlando Taylor, Associate Director
Language in Education Program
Center for Applied Linguistics
1717 Massachusetts Avenue, N.W.
Washington, D. C. 20036

Ralph W. Tyler, Vice President
Science Research Associates
259 East Erie Street
Chicago, Illinois 60611

Alvin M. Weinberg, Director
Oak Ridge National Laboratory
P. O. Box "X"
Oak Ridge, Tennessee 37830

Ronald Williams, Professor
Department of Education
Western Washington College
Bellingham, Washington 98225

# participating faculty and administrators

Elsa M. Aguiar, Assistant Professor,
Natural Science
Edward Waters College
Jacksonville, Florida 32209

Peggy L. Allen
Computer Center Staff
Jackson State College
Jackson, Mississippi 39217

Gregory Anekwe
Assistant Professor, Biology
Tuskegee Institute
Tuskegee Institute, Alabama 36088

Lionel Arnold, Dean
LeMoyne-Owen College
Memphis, Tennessee 38126

Calvin O. Atchison, Director of Development
Tennessee State University
Nashville, Tennessee 37203

Leonard C. Barnes, Dean of Students
Southern University
Baton Rouge, Louisiana 70813

Erlinda G. Barranda
Instructor, Psychology
Norfolk State College
Norfolk, Virginia 23504

John W. Bennett, Academic Dean
Mary Holmes College
West Point, Mississippi 39774

Ernest Berry
Associate Professor, Psychology
Cheyney State College
Cheyney, Pennsylvania 19319

Mike Berry
Instructor, Natural Science
Utica Junior College
Utica, Mississippi 39175

Ruby W. Billups, Registrar
Grambling College
Grambling, Louisiana 71245

Andres Blanco
Education and Humanities
Miles College
Birmingham, Alabama 35208

James W. Brown, Director of Development
Huston-Tillotson College
Austin, Texas 78702

John H. Brown, Director of Development
Prentiss Institute
Prentiss, Mississippi 39474

Martha Brown, Mathematics Instructor
Langston University
Langston, Oklahoma 73050

Richard A. Brown, Dean of the Faculty
Bluefield State College
Bluefield, West Virginia 24701

Roscoe S. Brown
Assistant Professor, Biology
Grambling College
Grambling, Louisiana 71245

Willis Brown, Assistant Professor
Social Science
Langston University
Langston, Oklahoma 73050

Johnnie M. Bullock
Instructor, Mathematics
Johnson C. Smith University
Charlotte, North Carolina 28208

Sammie B. Burris
Mathematics Instructor
Knoxville College
Knoxville, Tennessee 37921

Luella H. Casson
Director of Counseling
Philander Smith College
Little Rock, Arkansas 72203

Luana F. Clayton, Director
13-College Curriculum Program
Jackson State College
Jackson, Mississippi 39217

Marshall C. Cleveland, Jr., President
Selma University
Selma, Alabama 36701

Rowena Cleveland
Department of History
Selma University
Selma, Alabama 36701

Cecil W. Clift, Division Chairman
Jarvis Christian College
Hawkins, Texas 75765

Arthur M. Coffee
Instructor, Biological Science
Arkansas A M & N College
Pine Bluff, Arkansas 71601

James T. Coleman
Assistant Professor, Biology
Southern University
New Orleans, Louisiana 70125

Walter H. Dabney, Dean of Engineering
Tennessee State University
Nashville, Tennessee 37203

Marcheta T. Davis
Instructor, Social Science
Mary Holmes College
West Point, Mississippi 39774

Richmond C. Davis
Vice President for Academic Affairs
Arkansas A M & N College
Pine Bluff, Arkansas 71601

E. E. Dawson
CEAP Campus Coordinator
Utica Junior College
Utica, Mississippi 39175

Bobby M. Downing
Associate Professor, Music
Knoxville College
Knoxville, Tennessee 37921

Veronica M. Drawe, Dean
Xavier University of Louisiana
New Orleans, Louisiana 70125

F. D. Duncan, Associate Professor
Education and Psychology
Barber-Scotia College
Concord, North Carolina 28025

Sister M. Eucharista
Coordinator, Government Resources
Xavier University of Louisiana
New Orleans, Louisiana 70125

Elaine Ferguson
Assistant Professor, Business Education
Essex County College
Newark, New Jersey 07102

David O. Findley
Assistant Professor, Physics
Virginia State College
Petersburg, Virginia 23803

John H. Finley
Instructor, Music
Miles College
Birmingham, Alabama 35208

Robert G. Finney
Dean of Communications
Shaw University
Raleigh, North Carolina 27602

E. C. Fonsworth
Professor, Science Education
Bishop College
Dallas, Texas 75241

Herbert G. Gessert
Director of Planning and Development
Paul Quinn College
Waco, Texas 76703

Walter W. Gibson, Chairman
Natural Science and Mathematics
LeMoyne-Owen College
Memphis, Tennessee 38126

Saralou R. Gifford
Assistant Professor, English
Philander Smith College
Little Rock, Arkansas 72203

Jason Gilchrist
Head, Physics
Delaware State College
Dover, Delaware 19901

Alan W. Goldstein, Chairman
Social and Behavioral Science Division
Shaw University of Detroit
Detroit, Michigan 48202

Daniel T. Grant, President
Daniel Payne College
Birmingham, Ala[illegible]

Jean M. Grant
Assistant Professor, Biology
Washington Technical Institute
Washington, D. C. 20005

George W. Grayson
Instructor, Biology
Alabama A & M University
Normal, Alabama 35762

Robert Green
Associate Professor, Art
Arkansas A M & N College
Pine Bluff, Arkansas 71601

Freddie L. Groomes
Associate Director of Project Upward Bound
Florida A & M University
Tallahassee, Florida 32307

Malkiat S. Guram, Academic Dean
Voorhees College
Denmark, South Carolina 29042

Robert L. Hannon, Sr.
Director of Development
Fayetteville State University
Fayetteville, North Carolina 28301

Joe Hargrove
Instructor, Physical Science
Arkansas A M & N College
Pine Bluff, Arkansas 71601

Herman F. Harris
Assistant in Development
Academic Liaison Officer
Paine College
Augusta, Georgia 30901

James N. Harris, Head
Department of Industrial Technology
Tuskegee Institute, Alabama 36088

Walter Harris
Instructor, Music
Knoxville College
Knoxville, Tennessee 37921

Nancy L. Homan
Assistant Professor, English
Virginia State College
Perersburg, Virginia 23803

Annie L. Huff
Assistant Professor, Biology
Fort Valley State College
Fort Valley, Georgia 31030

Arthur F. Jackson
Dean of Arts and Sciences
North Carolina A & T State University
Greensboro, North Carolina 27411

Kara V. Jackson
Director of Student Research
Grambling College
Grambling, Louisiana 71245

W. Kirk Jackson
Director of Placement and Development
Atlanta University
Atlanta, Georgia 30314

Desiree E. Jett
Assistant Professor, Biology
Essex County College
Newark, New Jersey 20005

Lester B. Johnson
Instructor, Technical Sciences
Savannah State College
Savannah, Georgia 31404

Rosa B. Johnson, Campus Coordinator
Computer Science Center
Albany State College
Albany, Georgia 31705

Se Jin Kim, Chairman
Department of Political Science
North Carolina Central University
Durham, North Carolina 27707

Margaret W. Knighton
Assistant Professor, Chemistry
Southern University
Shreveport, Louisiana 71107

Mary Leazer
Instructor, Geography
Livingstone College
Salisbury, North Carolina 28144

Joseph W. Letson
Instructor, Philosophy
Central State University
Wilberforce, Ohio 45384

Raphael O. Lewis
Assistant Professor, Political Science
Philander Smith College
Little Rock, Arkansas 72203

James U. Lowe, Administrative Assistant
School of Medicine
Meharry Medical College
Nashville, Tennessee 37208

Dharam D. Malik
Head, Biology
Jarvis Christian College
Hawkins, Texas 75765

Albert Malveaux, Administrative Assistant
of the Computer Center
Xavier University of Louisiana
New Orleans, Louisiana 70125

Theodore W. Maull
Professor of Biology
Morgan State College
Baltimore, Maryland 21212

Lee A. McGriggs
Instructor, History
Alabama A & M University
Normal, Alabama 35762

Joan G. Murphy
Instructor, French
Arkansas A M & N College
Pine Bluff, Arkansas 71601

Odessa Nelson, Head
Biology Department
Allen University
Columbia, South Carolina 29204

McKinley Newton
Title III Coordinator
Philander Smith College
Little Rock, Arkansas 72203

Joyce O'Rourke
Instructor, English and Drama
Stillman College
Tuscaloosa, Alabama 35401

Robert L. Painter
Instructor, Sociology
Cheyney State College
Cheyney, Pennsylvania 19319

Segismundo A. Pares
Chairman of Social Science
Miles College
Birmingham, Alabama 35208

George W. Parker
Director of Continuing Education
Southern University
New Orleans, Louisiana 70125

Paul E. Parker
Assistant Professor, Engineering
North Carolina A & T State University
Greensboro, North Carolina 27411

Hattie Perkins
Coordinator of Humanities Team
Grambling College
Grambling, Louisiana 71245

C. W. Pettigrew
Dean of the Graduate Division
Fort Valley State College
Fort Valley, Georgia 31030

Raleigh P. Player
Chairman of Arts and Sciences
Alabama State University
Montgomery, Alabama 36101

Sylvia Plutchok
Instructor, Art
Clark College
Atlanta, Georgia 30314

Edward C. Powell, Dean of Instruction
Jarvis Christian College
Hawkins, Texas 75765

Johnnie Prothro, Head
Home Economics and Food Administration
Tuskegee Institute
Tuskegee Institute, Alabama 36088

Robert A. Przedzial
Assistant Professor, Science
Cheyney State College
Cheyney, Pennsylvania 19319

Warren J. Ray, Jr.
Instructor, Chemistry
Xavier University of Louisiana
New Orleans, Louisiana 70125

Charles F. Reid
Director of Public Relations and Development
Coahoma Junior College
Clarksdale, Mississippi 38614

Isaac Ridley
Head of Technical Sciences
Virginia State College
Petersburg, Virginia 23803

Edward E. Riley, Jr., Dean
Dillard University
New Orleans, Louisiana 70122

Coleman D. Rippy
Assistant Professor, Sociology
Johnson C. Smith University
Charlotte, North Carolina 28208

Theodore M. Rose, II
Chairman, Mathematics
Philander Smith College
Little Rock, Arkansas 72203

Sarah L. Rosemond
Associate Professor, Music
Bethune Cookman College
Daytona Beach, Florida 32015

James W. Russell
Instructor, Business Management
Tuskegee Institute
Tuskegee Institute, Alabama 36088

Delacy W. Sanford
Instructor, American History
Savannah State College
Savannah, Georgia 31404

Wynelda Satisfield
Assistant Professor, English
Miles College
Birmingham, Alabama 35208

Larry Shannon
Instructor, Biology
Lincoln University
Jefferson City, Missouri 65101

Eunice C. Simpson
Assistant Professor, Sociology
Alabama State University
Montgomery, Alabama 36101

J. C. Simpson, Academic Dean
Livingston College
Salisbury, North Carolina 28144

Dharmdeo N. Singh
Professor, Biology
Claflin Universi[illegible]
Orangeburg, Sou[illegible]olina 29115

Raghbir Singh
Chairman of Science and Math
Benedict College
Columbia, South Carolina 29204

Lillie K. Singleton
Chairman, Natural Science
T. A. Lawson State Junior College
Birmingham, Alabama 35228

Nirmal K. Sinha, Chairman and Professor
Department of Sociology
Morgan State College
Baltimore, Maryland 21212

Cammie L. Sleet
Registrar and Director of Admissions
Shaw College of Detroit
Detroit, Michigan 48202

Albert D. Smart, Chairman and Professor
Department of Business Administration
North Carolina A & T State University
Greensboro, North Carolina 27411

Charlie J. Smith
Assistant Professor, Science Education
Jackson State College
Jackson, Mississippi 39217

Eddie C. Smith
Instructor, Biological Science
Coahoma Junior College
Clarksdale, Mississippi 38614

Verna L. Spinks
Instructor, Biology
Alcorn A & M College
Lorman, Mississippi 39096

Mary E. Stewart
Associate Professor, English
Knoxville College
Knoxville, Tennessee 37921

Martha Sutver
Dietitian and Women Student Counselor
Morristown College
Morristown, Tennessee 37814

John H. Taylor
Chairman of the Science Department
Cheyney State College
Cheyney, Pennsylvania 19319

Joseph E. Taylor
Instructor, History
Bethune Cookman College
Daytona Beach, Florida 32015

Yvonne W. Taylor
Dean of Instruction
Wilberforce University
Wilberforce, Ohio 45384

Claiburne B. Thorpe
Professor, Sociology
North Carolina A & T State University
Greensboro, North Carolina 27411

Arthur S. Totten
Associate Professor, Animal Science
North Carolina A & T State University
Greensboro, North Carolina 27411

Helen R. Trobian
Chairman of Humanities
Bennett College
Greensboro, North Carolina 27402

Gladys C. Trotman, Psychometrist
Elizabeth City State University
Elizabeth City, North Carolina 27909

J. A. Vendettvoli, Jr.
Administrative Coordinator
Shaw University of Detroit
Detroit, Michigan 48202

William M. Walker
Instructor, Social Science
Coahoma Junior College
Clarksdale, Mississippi 38614

Olivia W. Washington
Assistant Professor, Sociology and Anthropology
Delaware State College
Dover, Delaware 19901

Garrett F. Weaver
Instructor of History
West Virginia State College
Institute, West Virginia 25112

George O. Williams
Instructor, Biology
Coahoma Junior College
Clarksdale, Mississippi 38614

W. C. Witherspoon
Director, Student Personnel
Elizabeth City State University
Elizabeth City, North Carolina 27909

L. C. Wood, Dean of Instruction
Paul Quinn College
Waco, Texas 76703

John Wynne
Intern in Community Education
Federal City College
Washington, D. C. 20001

Clora Young
Assistant Professor, Sociology
Oakwood College
Huntsville, Alabama 35806

**Student participants from Knoxville College:**

Brady Harden, Jr.
Received B.S. in Commerce, June 1970

Kenneth Jones
Senior Biology Major

Charles F. Mason
Senior History-Philosophy Major
and President of Student Body

Brenda Wiggins
Senior Biology Major

43
40

# appendix b

## 1969 WORKSHOP SCHEDULE, CONTRIBUTORS, AND PARTICIPANTS

## SCHEDULE ● AUGUST 4-29, 1969 ● OAK RIDGE, TENNESSEE

| Monday, August 4 | Tuesday, August 5 | Wednesday, August 6 | Thursday, August 7 | Friday, August 8 |
|---|---|---|---|---|
| 9:00 a.m. WELCOME<br>ORAU – W. G. Pollard<br>ORO – H. M. Roth<br>USAEC – M. A. Bowden<br>UCNC – R. F. Hibbs | 9:00 a.m.<br>ENGINEERING AT ARGONNE NATIONAL LABORATORY<br>M. Levenson | 9:00 a.m.<br>TECHNICAL INFORMATION<br>R. L. Shannon | 9:00 a.m.<br>PHYSICS<br>J. L. Fowler<br>T. A. Welton | 9:00 a.m.<br>CHEMISTRY<br>E. H. Taylor<br>R. Livingston |
| 9:45 a.m.<br>DNET PROGRAMS<br>E. S. Pierce | 10:30 a.m.<br>ENGINEERING AT BROOKHAVEN NATIONAL LABORATORY<br>C. Williams<br>B. G. Nimmo | 2:00–4:30 p.m.<br>INFORMATION CENTERS<br>F. Kertesz | 10:30 a.m. Lab Visit | 10:30 a.m. Lab Visit |
| 10:45 a.m.<br>F.I.C.E.<br>E. Bacon | 2:00–4:30 p.m.<br>Workshop I | | 2:00–4:30 p.m.<br>Workshop II | 2:00–4:30 p.m.<br>Workshop III |
| 11:40 a.m.<br>THE PLAN OF THE WORKSHOP<br>W. W. Grigorieff<br>H. Liston | 6:30 p.m.<br>DINNER (Dutch) WITH AEC Commissioner T. J. Thompson | | | |
| 2:00–4:30 p.m.<br>ENGINEERING AT ORNL<br>S. E. Beall | | | | |
| 5:30 p.m. Social | | | | |

| Monday, August 11 | Tuesday, August 12 | Wednesday, August 13 | Thursday, August 14 | Friday, August 15 |
|---|---|---|---|---|
| 9:00 a.m.–12 noon<br>ENGINEERING AND PRODUCTION<br>P. R. Vanstrum<br>W. J. Wilcox, Jr.<br>W. J. Yaggi | 9:00 a.m.<br>BIOENGINEERING<br>J. L. Liverman | 9:00 a.m.<br>BIOLOGY<br>H. I. Adler | VISIT TO SAVANNAH RIVER LABORATORY | 9:00 a.m.–4:30 p.m.<br>Workshop V |
| 2:00–4:30 p.m.<br>ECOLOGY<br>J. S. Olson<br>J. W. Curlin | 2:00–4:30 p.m.<br>Workshop IV | 4:48 p.m.<br>DEPART FOR AUGUSTA, GA. | RETURN TO OAK RIDGE | |
| | 7:00 p.m. DINNER (Dutch)<br>E. Bacon, Executive Director, F.I.C.E.<br>M. Donahue<br>D. Carlisle | 7:30 p.m. DINNER WITH SRL/SRO OFFICIALS | | |

| Monday, August 18 | Tuesday, August 19 | Wednesday, August 20 | Thursday, August 21 | Friday, August 22 |
|---|---|---|---|---|
| AEC PROGRAMS (Long Range) | | | | |
| 9:00 a.m.–12 noon<br>DIVISION OF REACTOR DEVELOPMENT AND TECHNOLOGY (Engrg.)<br>D. Cope | 9:00 a.m.–12 noon<br>DIVISION OF BIOLOGY AND MEDICINE<br>J. R. Totter | HIGHLIGHTS OF NEW APPROACHES TO ENGINEERING EDUCATION<br>F. N. Peebles | 9:00 a.m.<br>NSF PROGRAMS<br>T. D. Fontaine | 9:00 a.m.<br>FELLOWSHIPS<br>G. C. Kyker |
| 2:00–4:30 p.m.<br>DIVISION OF RESEARCH<br>D. R. Miller<br>W. E. Hughes<br>H. J. Foster | 2:00–4:30 p.m.<br>DIVISION OF ISOTOPES DEVELOPMENT<br>R. L. Butenhoff<br>P. S. Baker | | 10:00 a.m.<br>HEW PROGRAMS<br>P. Valien | 10:00 a.m.<br>FACULTY PARTICIPATION<br>L. A. Rayburn |
| | | | 11:00 a.m.<br>NASA PROGRAMS<br>F. Hansing | 11:00 a.m.<br>EDUCATION AT OAK RIDGE NATIONAL LABORATORY<br>L. Nelson |
| | | | 2:00–4:30 p.m.<br>Workshop VI | 2:00 p.m.–F. L. Culler |
| | | | | 3:00–4:30 p.m.<br>RECRUITMENT: CONFERENCES AND INSTITUTES |

| Monday, August 25 | Tuesday, August 26 | Wednesday, August 27 | Thursday, August 28 | Friday, August 29 |
|---|---|---|---|---|
| | University Participation | | "Back-Talk" | SUMMARY–CONCLUSIONS |
| 9:00 a.m.<br>AEC ASSISTANCE<br>H. M. Roth | 9:00–10:30 a.m.<br>AT ARGONNE NATIONAL LABORATORY<br>M. D. Peterson<br>L. W. Dini<br>J. A. Wagner | SUB-GROUP WORK SESSIONS | RECAPITULATION–PLANS FOR FOLLOW-UP | 9:00 a.m.–12:00 noon<br>M. Bowden<br>G. Courtney<br>E. S. Pierce<br>H. M. Roth<br>W. G. Pollard<br>H. Liston<br>W. W. Grigorieff |
| 10:00 a.m.<br>ENVIRONMENTAL MUTAGENS–SYMPOSIA<br>A. Hollaender | | | | |
| 11:00 a.m.<br>TRAINING AND TECHNOLOGY<br>W. H. Russell | 10:30 a.m.–12:00 noon<br>AT BROOKHAVEN NATIONAL LABORATORY<br>R. C. Anderson | | 6:00 p.m.<br>PICNIC (Dutch) | |
| 2:00–4:30 p.m.<br>Workshop VII | 2:00–4:30 p.m.<br>Workshop VIII | | | |

# contributors

H. I. Adler, Director
Biology Division
Oak Ridge National Laboratory
P. O. Box "X"
Oak Ridge, Tennessee 37830

R. Christian Anderson
Assistant Director
Brookhaven National Laboratory
Upton, New York 11973

Cleon Arrington
Head, Chemistry Department
Atlanta University
Atlanta, Georgia 30314
(employed at Savannah River Laboratory during the summer)

E. F. Bacon
Federal Interagency Committee on Education
U. S. Department of Health, Education, and Welfare
Room 4065, 400 Maryland Avenue, S.W.
Washington, D.C. 20201

Philip S. Baker, Director
Isotopes Information Center
Oak Ridge National Laboratory
P. O. Box "X"
Oak Ridge, Tennessee 37830

N. P. Baumann
Experimental Physics Division
E. I. duPont de Nemours & Company
Savannah River Laboratory
Aiken, South Carolina 29801

S. E. Beall, Director
Reactor Division
Oak Ridge National Laboratory
P. O. Box "X"
Oak Ridge, Tennessee 37830

Charles A. Blake
Equal Employment Opportunity Coordinator
Union Carbide Corporation, Nuclear Division
Oak Ridge, Tennessee 37830

Marion Bowden, Assistant for Equal Employment Opportunity Programs
Office of the General Manager
U. S. Atomic Energy Commission
Washington, D. C. 20545

R. L. Butenhoff, Program Manager
Radiation Analysis and Control Staff
Division of Isotopes Development
U. S. Atomic Energy Commission
Washington, D. C. 20545

D. F. Cope, Senior Site Representative
Division of Reactor Development and Technology
U. S. Atomic Energy Commission
Oak Ridge, Tennessee 37830

George W. Courtney, Jr., Assistant to the Director for Plans and Policies
Division of Nuclear Education and Training
U. S. Atomic Energy Commission
Washington, D. C. 20545

J. W. Curlin
Oak Ridge National Laboratory
P. O. Box "X"
Oak Ridge, Tennessee 37830

F. L. Culler, Assistant Director
Oak Ridge National Laboratory
P. O. Box "X"
Oak Ridge, Tennessee [redacted]

L. W. Dini
Center for Educational Affairs
Argonne National Laboratory
9700 South Cass Avenue
Argonne, Illinois 60439

Maurice Donahue
Federal Interagency Committee on Education
U. S. Department of Labor
Washington, D. C. 20210

S. G. English, Assistant General Manager for Research and Development
U. S. Atomic Energy Commission
Washington, D. C. 20545

Frank Field, Research Manager
Reactor Engineering Division
E. I. du Pont de Nemours & Company
Savannah River Laboratory
Aiken, South Carolina 29801

Thomas D. Fontaine
Associate Director for Education
National Science Foundation
Washington, D. C. 20550

Howard Foster, Head
Department of Physics
Alabama A & M College
Normal, Alabama 35762
(employed at the USAEC headquarters during the summer)

J. L. Fowler, Director
Physics Division
Oak Ridge National Laboratory
P. O. Box "X"
Oak Ridge, Tennessee 37830

W. W. Grigorieff
Assistant to the Director
Oak Ridge Associated Universities
Oak Ridge, Tennessee 37830

Louis M. Groeniger
Assistant to the Manager for Equal Opportunity
Chicago Operations Office
U. S. Atomic Energy Commission
9800 South Cass Avenue
Argonne, Illinois 60439

R. J. Hale
Budget and Planning Division
E. I. du Pont de Nemours & Company
Savannah River Laboratory
Aiken, South Carolina 29801

Frank Hansing, Director
Division of Sustaining University Programs
National Aeronautics and Space Administration
Washington, D. C. 20546

Warren E. Henry
Federal Interagency Committee on Education
U. S. Department of Health, Education,
and Welfare
Room 4065, 400 Maryland Avenue, S.W.
Washington, D. C. 20545

R. F. Hibbs, President
Union Carbide Corporation, Nuclear Division
P. O. Box "Y"
Oak Ridge, Tennessee 37830

Alexander Hollaender
Senior Research Advisor, Biology Division
Oak Ridge National Laboratory
P. O. Box "X"
Oak Ridge, Tennessee 37830

Walter E. Hughes
Assistant Director for Administration
Division of Research
U. S. Atomic Energy Commission
Washington, D. C. 20545

R. T. Huntoon, Research Manager
Nuclear Materials Division
E. I. du Pont de Nemours & Company
Savannah River Laboratory
Aiken, South Carolina 29801

Douglas H. Hutchinson, Head
Department of Industrial Engineering
The University of Tennessee
Knoxville, Tennessee 37916

C. H. Ice, Director
E. I. du Pont de Nemours & Company
Savannah River Laboratory
Aiken, South Carolina 29801

Francois Kertesz, Coordinator
Information Centers
Oak Ridge National Laboratory
P. O. Box "X"
Oak Ridge, Tennessee 37830

H. L. Kilburn, Deputy Manager
Savannah River Operations
U. S. Atomic Energy Commission
P. O. Box "A"
Aiken, South Carolina 29801

W. C. Kuykendall, Manager
Central Employment Office
Union Carbide Corporation, Nuclear Division
Oak Ridge, Tennessee 37830

G. C. Kyker
Assistant to the Director for Fellowships
Oak Ridge Associated Universities
P. O. Box 117
Oak Ridge, Tennessee 37830

Milton Levenson
EBR-2 Project, Argonne National Laboratory
9700 South Cass Avenue
Argonne, Illinois 60439

Hardy Liston, Jr., Assistant Vice
Chancellor for Academic Affairs
University of Tennessee
Knoxville, Tennessee 37916
(on temporary assignment—ORAU's
Special Projects Office)

J. L. Liverman, Assistant Director
Oak Ridge National Laboratory
P. O. Box "X"
Oak Ridge, Tennessee 37830

Ralph Livingston
Associate Director, Chemistry Division
Oak Ridge National Laboratory
P. O. Box "X"
Oak Ridge, Tennessee 37830

Robert L. Maxwell
Department of Mechanical Engineering
The University of Tennessee
Knoxville, Tennessee 37916

Charles Meredith
Chemistry Department
Morehouse College
Atlanta, Georgia 30314
(employed at Savannah River Laboratory
during the summer)

L. H. Meyer, Assistant Director
E. I. du Pont de Nemours & Company
Savannah River Laboratory
Aiken, South Carolina 29801

D. R. Miller, Deputy Director
Division of Research
U. S. Atomic Energy Commission
Washington, D. C. 20545

S. A. Miller, Director
Center for Educational Affairs
Argonne National Laboratory
9700 South Cass Avenue
Argonne, Illinois 60439

Charles F. Moore
Department of Chemical Engineering
The University of Tennessee
Knoxville, Tennessee 37916

J. W. Morris, Director
Professional and University Relations Office
E. I. du Pont de Nemours & Company
Savannah River Laboratory
Building 770-A
Aiken, South Carolina 29801

Lewis Nelson, Director
Education and University Relations
Oak Ridge National Laboratory
P. O. Box "X"
Oak Ridge, Tennessee 37830

B. G. Nimmo
Assistant Professor of Mechanical Engineering
Clarkson College of Technology
Potsdam, New York 13676
(employed at Brookhaven National Laboratory during the summer)

J. S. Olson
Biogeochemical Ecology Research Collection
Oak Ridge National Laboratory
P. O. Box "X"
Oak Ridge, Tennessee 37830

P. F. Pasqua, Professor and Head
Department of Nuclear Engineering
The University of Tennessee
Knoxville, Tennessee 37916

F. N. Peebles, Dean of Engineering
The University of Tennessee
Knoxville, Tennessee 37916

E. S. Pierce, Deputy Director
Division of Nuclear Education and Training
U. S. Atomic Energy Commission
Washington, D. C. 20545

William G. Pollard, Executive Director
Oak Ridge Associated Universities
P. O. Box 117
Oak Ridge, Tennessee 37830

John W. Prados, Associate Dean of Engineering
The University of Tennessee
Knoxville, Tennessee 37916

J. F. Proctor
Separations Engineering Division
E. I. du Pont de Nemours & Company
Savannah River Laboratory
Aiken, South Carolina 29801

L. A. Rayburn
Assistant to the Director
for University Participation
Oak Ridge Associated Universities
P. O. Box 117
Oak Ridge, Tennessee 37830

H. M. Roth, Director
Laboratory and University Division
U. S. Atomic Energy Commission
P. O. Box "E"
Oak Ridge, Tennessee 37830

W. H. Russell, Director
Training and Technology
Oak Ridge Associated Universities
P. O. Box 117
Oak Ridge, Tennessee 37830

R. L. Shannon, Extension Manager
Division of Technical Information Extension
U. S. Atomic Energy Commission
P. O. Box "E"
Oak Ridge, Tennessee 37830

J. E. Suich, Director
Computer Sciences Section
E. I. du Pont de Nemours & Company
Savannah River Laboratory
Aiken, South Carolina 29801

E. H. Taylor, Director
Chemistry Division
Oak Ridge National Laboratory
P. O. Box "X"
Oak Ridge, Tennessee 37830

Theos J. Thompson, Commissioner
U. S. Atomic Energy Commission
Washington, D. C. 20545

J. R. Totter, Director
Division of Biology and Medicine
U. S. Atomic Energy Commission
Washington, D. C. 20545

Preston Vallen, Acting Associate Commissioner
Bureau of Higher Education
Office of Education
Room 4082, ROB #3
Washington, D. C. 20202

P. R. Vanstrum, Vice President–Production
Union Carbide Corporation, Nuclear Division
P. O. Box "Y"
Oak Ridge, Tennessee 37830

J. A. Wagner, Professor of Biology
Morehouse College
Atlanta, Georgia 30314
(employed at Argonne National Laboratory during the summer)

C. H. Weaver, Chancellor
The University of Tennessee
Knoxville, Tennessee 37916

T. A. Welton
Physics Division
Oak Ridge National Laboratory
P. O. Box "X"
Oak Ridge, Tennessee 37830

W. J. Wilcox, Jr.
Oak Ridge Gaseous Diffusion Plant
Union Carbide Corporation, Nuclear Division
P. O. Box "P"
Oak Ridge, Tennessee 37830

Clarke Williams, Consultant
Brookhaven National Laboratory
Upton, New York 11973

William J. Yaggi
Union Carbide Corporation, Nuclear Division
P. O. Box "Y"
Oak Ridge, Tennessee 37830

C. L. Yarbro
Laboratory and University Division
U. S. Atomic Energy Commission
P. O. Box "E"
Oak Ridge, Tennessee 37830

Harold H. Young
Division of Nuclear Education and Training
U. S. Atomic Energy Commission
Washington, D. C. 20545

# participants

Andrew Bond
Associate Professor of Animal Science
Tennessee State University
Nashville, Tennessee 37203

David Y. Chung, Department of Physics
Howard University
Washington, D. C. 20001

Z. W. Dybczak
School of Engineering
Tuskegee Institute
Tuskegee Institute, Alabama 36088

B. J. Evans
Department of Physics
Howard University
Washington, D. C. 20001

George A. Ferguson
Department of Mechanical Engineering
Howard University
Washington, D. C. 20001

K. A. Huggins
Head, Science Division
Bishop College
Dallas, Texas 75241

Ray Ingram
Department of Civil Engineering
Southern University
Baton Rouge, Louisiana 70813

Arthur V. Jett
Department of Electrical Engineering
Tuskegee Institute
Tuskegee Institute, Alabama 36088

Walter B. Johnson
Coordinator of Research Programs
Bishop College
Dallas, Texas 75241

I. K. Kothari, Head
Department of Physics
Tuskegee Institute
Tuskegee Institute, Alabama 36088

William McCloud
Department of Biology
Johnson C. Smith University
Charlotte, North Carolina 28208

Ivory V. Nelson, Assistant Dean
Prairie View A & M College
Prairie View, Texas 77445

Jesse M. Nicholson
Department of Chemistry
Howard University
Washington, D. C. 20001

Paul E. Parker
Department of Mechanical Engineering
North Carolina A & T State University
Greensboro, North Carolina 27411

Isaac Porche
Department of Electrical Engineering
Southern University
Baton Rouge, Louisiana 70813

Howard F. Robinson
Director of Research Administration
North Carolina A & T State University
Greensboro, North Carolina 27411

Arthur Thorpe
Department of Physics, Howard University
Washington, D. C. 20001

Kenneth Engelund (observer)
University of California
Lawrence Radiation Laboratory
Livermore, California 94550